174

Dear Langmuir

February 23, 2021

HC
106.
74

PROFITS, WAGES, AND PRICES

BY

DAVID FRIDAY

PROFESSOR OF POLITICAL ECONOMY
UNIVERSITY OF MICHIGAN

NEW YORK
HARCOURT, BRACE AND HOWE
1920

COPYRIGHT, 1920, BY
HARCOURT, BRACE AND HOWE, INC.

THE QUINN & BODEN COMPANY
RAHWAY, N. J.

FOREWORD

In the autumn of 1916 my attention was first attracted to the enormous growth of profits which resulted from the business activity induced by European war demands. It has fallen to my lot since that time to collect a considerable amount of material on profits, wages, prices and related subjects, most of which is today not readily available except to the specialist. This little book has no more pretentious ambition than that of presenting these facts briefly and in such form as to make them comprehensible to the general reader.

The statistical material in this volume, essential though it be, will probably be more abundant than the general reader will have the patience to follow in detail. Nor is it necessary that he should do so in order to get the point of view of the book or the gist of the author's conclusions. Though all of the chapters hang together, the meaning of almost any one of them may be grasped when taken by itself.

The facts concerning profits, wages and prices do not indicate disintegration or economic weakness in America, although they have created end-

less confusion in the public mind. What they do show is that the productive resourcefulness revealed by the war gives a substantial basis for social and economic optimism.

DAVID FRIDAY.

Ann Arbor, June 25, 1920.

CONTENTS

CHAPTER		PAGE
I.	The Curse of Peace	1
II.	The Growth of Profits . . .	14
III.	Normal Profits and Profiteering .	31
IV.	The Uses to Which Profits are Put	49
V.	The Rate of Interest . . .	69
VI.	The Course of Wages . . .	100
VII.	The Division of the Product . .	112
VIII.	How Europe Raised American Prices	133
IX.	Prices Since the Armistice . .	156
X.	General Prices and Public Utility Rates	166
XI.	The Theory of the New Taxes .	176
XII.	Has the Excess Profits Tax Raised Prices?	192
XIII.	The Part Played by the Banks .	207
XIV.	How Can Real Wages Be Raised? .	234

PROFITS, WAGES, AND PRICES

CHAPTER I

THE CURSE OF PEACE

When one compares the tone of American life during the spring and summer of 1918 with the state of public opinion and industrial activity of 1920, he wonders whether peace is really a blessing. Edwin Cannan tells the story of a charwoman who remarked to a charity worker: "This war has made many a happy family, sir." She seems to have been a person endowed with acute powers of observation, and something of a prophetess as well. Her paradoxical remark applied quite as much to America as to England. Not only the young men who were eager for an excuse to go in quest of adventure and the women suffering from ennui who had found relief in work were happy with the war. The whole nation had for once an end so direct and straightforward, so stimulating to the imagination, that it found itself possessed of a unity of purpose which led to satisfying activity. On the side of industry

there was complete employment of labor. Wages were high and profits were large. An unprecedented volume of product was flowing forth from our factories and workshops.

Today no great national end is unifying public opinion; instead there are innumerable bickerings. Neither the size of real wages nor the growth of national capital is fulfilling the hope raised by our industrial output during the war. At that time we accomplished the amazing feat of producing enough so that we were able to devote fifteen billion dollars' worth of product to the support of our allies and to the prosecution of war on our own account, and at the same time to maintain the great mass of our people in a state of comfort fully equal to that which they had enjoyed in times of peace.

But the moment the armistice came the word went forth that this state of affairs could not go on, that wartime profits must cease. So much we had rather expected. Likewise high wages and the "extravagant living" indulged in by the laboring classes during the war could no longer continue. Now it really does appeal to one's common sense as preposterous that the laborers should be thoroughly employed at good wages and should enjoy a high standard of living when the nation

was wasting fifteen billions a year upon war, but should find it impossible to maintain that standard when the waste of products had ceased. But the prophecy came true. Despite the return of several million men to industry, profits have decreased and the laborer has barely succeeded in maintaining his new standard of living. The national energy is being consumed in strife and dispute over profits, wages, and prices.

The public mind is in confusion. This confusion arises chiefly from the necessity of attempting to formulate our opinions without a sufficient basis of relevant fact.

If only we knew the facts concerning the size of profits, both in relation to the capital which earns them and in comparison with normal pre-war profits in the same industry, the American public would be in some sort of position to form an intelligent opinion on one question which is puzzling us. Is there "profiteering"? Do high profits cause high prices? Or does the chain of causation run from independent forces to increased prices and thence to high profits? We have little exact information about profits available in convenient form; therefore we fulminate and wonder.

The business men of the community insist in one breath that the excess profits tax is so oppres-

sive as to constitute confiscation and discourage industry; that it is a brake upon the wheels of industrial reconstruction. In the next breath they tell us that it is the chief cause of high prices because the business man finds it necessary to add, or at least does add to the price of his product an amount equal to several times the tax. It is difficult to understand how a tax which is paid by the consumer can stifle enterprise.

How large profits actually are, what rate of return they constitute upon the invested capital used in earning them, what profits remain after paying taxes; on these fundamental and elementary facts nothing is available to the intelligent citizen who is trying to arrive at some constructive conclusion upon which to base his political conduct.

In the discussion of prices there is even more confusion, although here more information is available in various publications. The rise in prices is the most obtrusive phase of the whole industrial situation today. Everyone is affected by it and is therefore conscious of it. How much have these prices risen, and how is the rise in prices measured? Did high profits and high wages come first, and bring about increased prices or were prices raised by other causes? In the lat-

ter event high money profits may have been merely a consequence of the price movement, and high money wages may have been another consequence. For high profits may result not from a selfish increase in price on the part of the entrepreneur, but as a fortuitous by-product of increased output and increased demand. Neither the good nor the evil that comes to any of us can be altogether ascribed to conscious intent and effort. It is proverbial that the rain falls on the just and the unjust alike. This seems irrational, as one would naturally suppose that the Almighty would cause rain to fall upon the just while the unjust were suffered to shrivel up. No more do profits come always to those who strive after them with malice aforethought.

Will prices fall, and what forces may be expected to bring about the decline? Is it simply that things which go up must come down, in the field of economics as in the sphere of gravitation? Is there a "normal" level of prices which tends to be re-established after the events of war have pulled the price system away from the normal, or does a price level once established tend to maintain itself?

Another group of problems centers about bank credit and the money market. We have had dur-

ing this turbulent period a quite unprecedented expansion of bank credit. There are persons of high financial position who see in this expansion the chief cause of the increase in prices. Did the expansion in loans actually precede the rise in prices or was it necessitated because a larger amount of purchasing medium was needed to effect the exchanges of the larger volume of goods at the higher prices?

Along with all this expansion of bank credit we have had a very considerable rise in the rate of interest. Not for decades has capital commanded the price which is now being freely offered by manufacturing and public utility enterprises of unquestioned standing. What is the explanation of this rise; and will the high rate continue?

And what of wages? The accusation of profiteering is brought against labor almost as freely as against the business man. To accuse both employers and laborers of profiteering is, of course, very much like indicting a whole nation, proverbially a futile performance. Just what has been the course of wages and have they risen in such manner as to increase costs to the point where present prices are no more than adequate to cover that increase? Money wages certainly have increased, until they are at least double what

they were in the pre-war period, or even in 1915. Have the laborer and the business man conspired to mulct the public? But here we are reminded that money is not always a dependable measure of true wages; real wages, the things which money wages buy, are the significant factor. If money wages have risen no more rapidly than prices, the real wages of labor have remained where they were; if prices have outrun money wages, the laborer is actually worse off than before.

Is it possible to raise the real wages of labor, the things which labor can buy and enjoy with money wages? If so, what are the conditions upon which these higher real wages depend? Must profits be reduced? Or can it be accomplished only through an increase in productive output? And if the latter should prove to be the only practicable method, can such an increase in productive output be maintained with our present social and industrial arrangements? Our amazing feats of war finance were made possible because of our large productive output, increased as it was, first under the stimulus of European war demand and high profits, and afterwards through the exuberance of spirit engendered by patriotism. It was a truly astounding feat, constituting nothing less than a great discovery,—this devoting fifteen bil-

lion dollars of our national product to the aid of our allies and to the maintenance of our military and naval establishment—while we were feeding and clothing our common people probably better than they had ever been fed and clothed before. On the industrial side our experience during the war proved that it is possible to maintain all our people in a state of well-being. The lesson which the war taught us should be conserved.

And finally, how is this grand total of income which is brought forth through the united efforts of the nation carved up and parceled out as between wages, taxes, interest and dividends? What portion of our national income is spent on living and what portion is devoted to increasing our physical, tangible wealth, such as manufacturing plants, railroads, residential and business buildings?

The federal government has, during the last three years, collected from the people an average of approximately four billion dollars per annum in taxes. This is five times the revenue raised in pre-war years. Judging from the utterances of public men and of the press, there seems to be a pretty general conviction that this five-fold tax burden has been the primary force which raised the price level. There is serious reason for be-

lieving that those who ascribe such remarkable powers of levitation to federal taxes are in error. For it is possible that large personal incomes, like business profits, were the indirect resultants of forces entirely outside the price system. In that case the government has done nothing more than to step in and take a small portion of the purely fortuitous profits and incomes which represent the by-product of war. These two lines of analysis of the excess profits tax are diametrically opposed. No study of the present situation can be thoroughly illuminating without resolving this conflict.

Taxation is an active and abiding part of our whole social structure. If it can be arranged in such manner that it falls only upon fortuitous and accidental gains, it will interfere little with the plans of individuals and business establishments. It will enable the government to secure the revenues needed for the prosecution of its functions without interfering with industrial progress. Whether in our newly found sources of taxation we have an instrument of this sort, or whether they are really oppressive measures which retard industry, is the most important question of public finance which has confronted this country in a half century.

Answers to questions such as these are needed to furnish some rational guidance in the formulation of a program which will bring the course of our industrial development during the next decade into closer conformity with the ideals which we are seeking to realize in our national life.

It is the purpose of this little volume to furnish some definite answer to such questions. The last five years have made available an amount of information of an exact quantitative nature such as we have never had before. The trouble is not that no information exists, but that it is scattered through a wide number of government publications and studies made by individuals and business organizations. The task of collecting the material is an impossible one for the ordinary business and professional man or for the laborer and labor leader. The mere time required to do this makes it prohibitive to such men, even though they have the requisite technical knowledge and skill. Even after the material is assembled, its interpretation is no simple matter. To help those who are seeking for exact information on these problems an attempt is here made to assemble the available facts concerning profits, wages, taxes, and prices, and to set them in orderly relation one

to another in such manner as to disclose their causal interdependence.

In order to get more directly and vitally at the heart of this industrial process which we are seeking to understand we must start with an examination of business profits. This follows from the very nature of our industrial organization. The central figure in modern industry as it exists today is the business man,—the entrepreneur, as he is called in the formal literature of economics. He stands at the center of the industrial process controlling and directing it. If industry is prosperous, it is because the business man is prosperous; if labor is fully employed and production is large, it is because individual entrepreneurs are hiring labor and using it in conjunction with plant to bring forth products. When the entrepreneur sees no prospect of profits production lags, unemployment develops, and the current of industrial life stagnates. Until we know the course of profits and the forces which underlie their fluctuation, and until we have discovered how they effect wages and prices, the public mind must remain in darkness and confusion.

It is a peculiar function of entrepreneurs to plan and direct the productive activities of the people.

They purchase labor, material, land, and plant; they decide what shall be produced, and combine the factors of production for the purpose of bringing forth the product. They select managers; they find the capital funds needed for the enterprise. Finally, they market the product and out of the proceeds they pay wages, taxes, rents, material costs, and interest on borrowed capital. Of the remainder an amount is usually set aside to cover contingencies, and depreciation sufficient to keep the capital intact. What is left constitutes business profits. These profits comprise the fund available for distribution as dividends or for the accumulation of a surplus which may be used to extend plant, to increase current assets, or to pay debts.

If we examine the part that profit plays in the determination of individual incomes and the part it forms of the national income, we find that next to wages it is by far the largest and most important share. The total net income reported for the calendar year 1917 by corporations and by individuals having incomes of $2,000 and over amounted to twenty billion dollars after eliminating duplications. Of this amount $14,700 million consisted of business profits.

It is clear then that the course of profits for

industry as a whole and for the different classes of industries must be one of the primary facts necessary to an intelligent understanding of our industrial situation.

CHAPTER II

THE GROWTH OF PROFITS

The popular impression that the war has brought a large increase in profits is fully borne out by the facts. The growth has been large, even after the payment of income and excess profits taxes. The profits of all corporations in the United States had never exceeded four billion dollars until 1913. Under the stimulus of war demand, with its high prices and increased production, profits reached the astounding figure of ten billion seven hundred million dollars in 1917, the latest year for which official published figures are available. These are the earnings which the corporations of the country reported for purposes of taxation, after deducting all operating expenses and interest on indebtedness. It was on this amount that their federal income and excess profits taxes were computed, and we may be fairly certain that the earnings are not overstated. For the five years preceding the outbreak of the European war corporate profits averaged somewhat less than four billion dollars; for the years

1916-1919 they averaged nine billion dollars before taxes and seven and one-half billion annually after paying federal income and excess profits tax levies.

The profits for the years 1909 to 1917, shown in the following table, are those which appear in the Internal Revenue reports. Those for 1918 and 1919 have been estimated on the basis of the published reports of the corporations and upon a sampling of the returns which the companies made to the Bureau of Internal Revenue. It is not probable that the final published returns, when available, will deviate from the estimates which are here presented by more than five per cent. The table shows the profits both before and after paying federal income and excess profits taxes.

NET INCOME OF ALL CORPORATIONS

Year	Net Income before Taxes	Federal Taxes	Net Income after Taxes
1909	$ 3,125,481,000	$ 20,960,000	$ 3,104,521,000
1910	3,360,251,000	33,512,000	3,326,739,000
1911	3,213,706,000	28,583,000	3,185,123,000
1912	3,832,151,000	35,006,000	3,797,145,000
1914	3,710,600,000	39,145,000	3,671,466,000
1915	5,184,400,000	56,973,000	5,127,427,000
1916	8,765,900,000	171,805,000	8,594,095,000
1917	10,730,360,000	2,142,446,000	8,587,914,000
1918	*9,500,000,000	*3,200,000,000	*6,300,000,000
1919	*8,500,000,000	*1,800,000,000	*6,700,000,000

* Estimated.

These figures show that the high-water mark of profits came in 1916 and 1917; and that contrary

to popular impression corporate profits have been declining since those years. If the figures of 1919 be adjusted for the fall in the purchasing power of the dollar, profits in that year after paying taxes are equal to only three billion pre-war dollars. This is an amount smaller than the earnings of any year since 1909.

While the profits of all corporations in 1916 were double those of any pre-war year, the reader must not conclude from these figures that every class of industry earned twice as much in 1916 as in any pre-war year. The growth of profits in various types of industry has been widely different. This fact will appear if the increase revealed by the figures for all corporations given above is compared with the figures shown in the table below. This table gives the earnings before deducting taxes for a large number of mining and manufacturing corporations. The earnings of 251 corporations are available in their published reports for the years 1911-1918. In addition to these the earning of 168 corporations whose reports are available only since 1915 have been tabulated. The last column of the table shows the combined income of the 419 corporations for the years 1915-1918.

Year	251 Corporations	419 Corporations
1911	$ 458,781,665	.....
1912	513,401,501	.....
1913	542,109,388	.....
1914	415,335,092	.....
1915	698,703,872	956,396,653
1916	1,402,745,796	1,969,963,281
1917	1,774,359,217	2,353,246,485
1918	1,591,207,084	2,119,829,456

These earnings are compiled from the published reports of the concerns to their stockholders and not from their returns made for purposes of taxation, but the comparative growth shown by the figures is not materially different from that shown for those industries by the Treasury reports. The Commissioner of Internal Revenue gives net income by industries from 1909 to 1913 in his Annual Reports for the years ended June 30, 1910 to 1914. 1914 and 1915 are not so shown. For 1916 and 1917 the Treasury has made an elaborate analysis of corporate incomes in the volumes "Statistics of Income" for these two years. The earnings for mining and manufacturing corporations for the period 1909-1917 are as follows:

Year	Net Income
1909	$1,325,807,000
1910	1,436,061,000
1911	1,309,819,000
1912	1,670,334,000
1913	2,026,884,000
1914	not shown
1915	not shown
1916	5,026,372,000
1917	6,809,238,000

The increase from 1913 to 1917 shown by these tax reports for all industrial corporations is practically the same percentage as that shown by the figures taken from the published reports of the 251 companies above. According to both these tables the earnings of mining and manufacturing corporations in 1917 were almost exactly 330 per cent. of those of 1913, the highest pre-war year.

No such increase occurred for railroads and public utilities, whose profits are shown in the next table.

Year	Net Income
1909	$ 808,960,000
1910	843,855,000
1911	806,324,000
1912	930,388,000
1913	1,003,186,000
1914	not shown
1915	not shown
1916	1,541,076,000
1917	1,303,824,000

These reached their highest point in 1916, when they stood at 153 per cent. of 1913, which was also their highest pre-war year. By 1917 they had fallen until they stood at only 130 per cent. of 1913. In 1918 these earnings fell off still more, and probably did not exceed one billion dollars. In 1919, owing to increased rates, the showing will be slightly better than in the previous year, but will not exceed that of 1913 by an amount which

allows them any considerable return upon the large amount of additional capital invested during the last seven years.

In the field of banking and finance the best index to profits is found in the earnings of national banks shown in the reports of the Comptroller of the Currency. During the last decade these have grown as follows:

Year ended June 30	Net Earnings	Per cent. earnings to capital and surplus
1909	$131,185,750	8.72%
1910	154,167,489	9.67
1911	156,985,513	9.35
1912	149,056,603	8.59
1913	160,980,084	9.06
1914	149,270,171	8.39
1915	127,094,709	7.08
1916	157,543,547	8.76
1917	194,321,000	10.52
1918	212,332,000	11.09
1919	240,366,000	12.11

Here the earnings for the year ended June 30, 1919, are 50 per cent. larger than they were in 1913, and are almost twice as large as they were in the first twelve months after the outbreak of the European war. They have continued to grow and will be larger in 1920 than in any preceding year.

The one important group of industries other than farming which remains to be considered is wholesale and retail trade. The returns made to

the Bureau of Internal Revenue for purposes of taxation are difficult to compare for the pre-war period and for 1917 because of the ever-increasing number of establishments which are shifting from the individual or partnership to the corporate organization. 69,713 corporations reporting in 1913 showed net income of $473,212,000; in 1916 only 30,583 corporations were classified under this caption in the Treasury publications. These showed net income of $464,876,000. The remaining companies previously included under this head seem to have been classified as "miscellaneous." In 1917 the Treasury publications show 91,057 trading corporations with a net income of $1,481,-061,000. While the differences in numbers impair the usefulness of these figures, there is no doubt that the earnings of this group have increased more rapidly than those of any other except mining and manufacturing. Published earnings of 22 mercantile corporations show the following growth since 1915, before deducting federal taxes:

Year	Net Earnings
1915	$ 59,687,000
1916	71,860,000
1917	83,778,000
1918	105,277,000

Mercantile earnings were still larger in 1919 than in any previous year. The earnings of thir-

teen of these corporations which are available for 1919 show an increase of 15 per cent. over 1918.

It is evident from these figures that the war has affected the profits of various enterprises in widely different degree. Mining and manufacturing industries have benefited enormously, at least on the showing of their money profits. This is true even after they have paid the excess profits and income taxes of which there is such persistent and bitter complaint. Wholesale and retail trade seem to come next in the benefit derived from the war. After these two the financial corporations show a much more moderate increase, but one which continued after mining and manufacturing began to fall off. Railroads and public utilities benefited materially during 1916, were fairly well off during 1917, but since that time have been actually injured by the industrial events which accompanied hostilities.

The increase in profits in some lines has entirely obscured this decrease in other lines. Taking industry in the aggregate, the profits of corporations in 1919 were no greater than they were in the prewar period, nor are the prices of corporate securities in the aggregate higher today than then. The truth is that the owners of certain kinds of mercantile and manufacturing establishments evi-

dently increased their profits at the expense of investors in other lines of business. This finds expression in the prices of the shares of these industries upon the market. Twenty industrial stocks had an average market price in the first five months of 1920 of 103.49, as against 65.71 in 1913. Twenty railroad stocks averaged 76.22 in the corresponding period of 1920, as against 113.69 in 1913. It is a striking coincidence that the industrials have increased 37.46 in price, and the rails have declined 37.78.

A shift has also occurred in the position of different investors in the same business. The stockholders, especially in profitable concerns, have benefited at the expense of bondholders. The return of the latter was fixed by contract; as the earnings of the business rose, the entire increase went to the stockholders. This finds expression in the lower price of bonds as compared with stocks. The average price of twenty leading bonds for the first five months of 1920 was 73.4, as against 94.8 for the corresponding months of 1913. The unusual gains represented by the increased value of the stock in profitable enterprises has been purchased in large part at the expense of investors in bonds and in railroad and public utility stocks.

The tables which have been presented thus far show that the movement of profits has been quite unlike in different fields of industry, and that it is improper to assume that every line of business has benefited greatly by the war. When we examine the earnings of subdivisions of these larger groups, we learn that even among the most profitable lines, such as mining and manufacturing, the high-water mark of earnings came in different years. Thus companies making arms and powder have steadily declined since 1916; iron and steel companies since 1917; while rubber and textiles reached their high-water mark in 1919. The table on the next page compiled from published earnings of 259 manufacturing and mercantile corporations shows this clearly, and gives us some indication as well of the general trend of industrial profits since 1917, the last year for which Treasury figures are available. This group of companies is for the most part identical with the group of 251 corporations whose earnings for the years 1911-1918 were shown earlier in the chapter.

The situation of the banks is relatively better than the figures of profits indicate, while that of the other groups is less favorable than one would judge from the showing of money profits. The assets of the banks are all in liquid form, and are

NET EARNINGS OF 259 CORPORATIONS
1916–1919

Industry	Number	1919	1918	1917	1916
Arms and powder	4	$ 16,892,959	$ 60,276,325	$ 63,150,015	$ 103,987,439
Automobiles and parts	13	135,822,747	74,925,115	75,958,340	73,120,434
Copper	26	42,257,092	130,313,058	210,611,232	286,744,949
Food and Ive	24	128,377,244	154,677,526	178,065,402	122,472,255
Iron and Steel	18	197,474,266	553,447,335	711,285,831	442,965,663
Leather	5	23,825,009	16,292,016	26,668,929	20,021,211
Machinery	34	170,639,031	182,582,511	166,724,674	116,625,122
Mercantile	13	56,824,875	49,498,665	46,009,836	40,151,802
Oils	28	250,717,794	234,925,795	239,090,895	181,652,754
Rubber	9	79,395,143	66,576,573	55,928,631	39,205,498
Textiles	12	45,178,704	32,816,854	25,514,973	17,794,691
Miscellaneous	73	223,652,833	263,080,040	253,246,578	208,156,625
Total	259	$1,371,057,697	$1,819,411,813	$2,052,255,336	$1,652,898,443

subject to slight risk of loss from a fall in the level of prices. In all the other industries the earnings which were not distributed to stockholders but were retained in the business are invested for the most part in high-priced inventories. Often the accumulated earnings of the entire war period are represented by a stock of materials, supplies, and partly finished goods little if any larger than the firms normally carried before the war. In the case of railroads and public utilities this will mean that these inventories will have to be carried into operating expenses at war prices when they are used in maintaining the property. Operating expenses will, therefore, be correspondingly high for some time to come. In the case of manufacturing and mercantile corporations these high-priced inventories will mean high cost of sales. If prices stop their upward movement and begin to fall, the result will be to reduce profits much below those of the last four years.

The statistics presented thus far cover only those businesses which are organized under the corporate form. This is not a defect of any magnitude, however, for the statistics of corporations have become in recent years very nearly synonymous with those of the business interests of the country as distinguished from agricultural

and professional activities. Railroads have for some decades been under the corporate form of organization; the same is true of telegraphs and telephones, electric railways, and other public utilities. The mining operations of the country are also carried on for the most part under the corporate form. The census shows that even a decade ago 91.4 per cent. of the mineral products of the United States were produced under corporate direction. Today only a negligible amount of mining is carried on under other forms of organization.

In manufacturing the corporate form has gradually replaced partnerships and individuals. The percentage of value added by manufacture in establishments owned by corporations increased from 63.3 per cent. in 1899 to 81.9 per cent. in 1914. With the growth of manufacturing during the last five years, and with the ever-increasing tendency to change from other forms of organization, probably more than 85 per cent. of the value added by manufactures now occurs in plants owned by corporations.

In the field of banking less than one per cent. of the total resources is represented by private banks. The total resources of all banks other than the twelve Federal Reserve Banks, as reported by

the Comptroller of the Currency for 1919, are $47,615,447,000; while private banks have only $266,000,000. In presenting the statistics for corporations we have, then, a pretty accurate picture of the growth of industrial profits during the last ten years.

But nothing has thus far been said about the profits of the farming industry. It is more difficult to obtain figures for farm profits than it is to obtain such figures for other kinds of business. The growth in the value of farm products does, however, indicate that the increase in farming profits taken as a whole was quite as great as for other industries. The following figures showing the value of farm products from 1911 to 1919 are an indication of what occurred.

VALUE OF FARM PRODUCTS

(In Millions of Dollars)

1911	$ 8,819
1912	9,343
1913	9,849
1914	9,895
1915	10,775
1916	13,406
1917	19,331
1918	22,480
1919*	24,982

*Preliminary.

By 1916 the value of farm products was 35 per cent. greater than in any pre-war year, while in 1919 it was 150 per cent. greater than in 1913.

Some indication as to what this means for profits is furnished by the reports of 251,838 farmers who had net income of $2,000 or over in 1917. These showed gross sales of $1,622,907,759, and business expense of $816,743,802. Their net income was $806,163,957. If this may be taken as any indication of the normal ratio of net income to gross sales in farming, then the total income from farming must have been very large indeed as compared with the pre-war period. The growth in the number of personal incomes reported for the income tax, and the growth in banking deposits, especially time deposits, in the agricultural sections of the country show a most astounding increase in well-being in the farming districts of the United States. It is not intended here to compare the earnings upon invested capital in the farming industry with the rate in other industries, but merely to compare the growth of earnings there with the growth elsewhere.

The incomes of individuals engaged in various lines of business no doubt moved very much like those of corporations. An examination of the personal income tax returns for 1914 and 1917 shows that the number of persons reporting incomes of $3,000 and over grew from 357,515 to 993,425. These returns represented a net income of $4,000

million in 1914 and of $9,126 million in 1917. The following table shows the incomes received for the two years grouped according to size:

NUMBER OF PERSONAL INCOME TAX RETURNS FOR THE UNITED STATES, 1914 and 1917

Income Class	1914	1917
3,000 to 5,000	149,279	560,763
5,000 to 10,000	127,448	270,666
10,000 to 25,000	58,603	112,502
25,000 to 50,000	14,676	30,391
50,000 to 100,000	5,161	12,439
100,000 to 150,000	1,189	3,302
150,000 to 300,000	769	2,347
300,000 to 500,000	216	559
500,000 and over	174	456
Total	357,515	993,425

Half of these personal incomes for 1917 come either directly or indirectly from business profits. In America the persons who enjoy large incomes do not derive them from interest on investment and from rents; they are enterprisers engaged in business operations.

We have sought in this chapter to bring the subject of war profits out of the nebulous state of comparative and superlative words, and to give it quantitative expression. The facts cited show that there was a large increase in business profits. But the growth of profits has not been progressive, as has been so commonly supposed nor has it been universal. Some industries have been in-

jured rather than benefited when the whole period is taken into consideration.

No generalizations can be drawn from these figures concerning the rate of return upon invested capital which the profits of particular establishments or industries have yielded. That can be done only by a detailed analysis of the facts concerning profits. Nor can we pass judgment upon the social effects of these war profits until we see the uses to which they have been put, and the part which they have played in distributing the product of industry among the various groups which make up our industrial society.

CHAPTER III

NORMAL PROFITS AND PROFITEERING

This astounding growth of profits described in the previous chapter was due only in slight measure to increased capital investment. For the most part it is to be ascribed to the increase in percentage of profits to capital employed in earning them. How do these war profits, when stated in such a percentage, compare with normal profits? Do they warrant the charge of profiteering so frequently made against business during the war and since?

What is profiteering? A satisfactory definition is altogether lacking because it is an entirely new term coined during the war. Most people would agree that profiteering was the exaction of a profit in excess of the normal. But what are normal profits? Normal profits would probably be generally described as necessary profits. While this is the popular notion of normal profits it is not the only meaning of that term nor the one which would meet the greatest acceptance on the part of scientific economists. When the economist

speaks of normal prices, normal wages or normal interest rates, he does not refer to necessary returns which must be paid in order to induce people to produce, to furnish labor or to furnish capital, but rather to the prices which will result from the factors which inhere in the situation and tend to affect prices, wages, or interest rates. If we use the word in this sense then normal profits would be those which tend to prevail as a result of the working of all factors operative in the industrial situation. War is generally regarded as an abnormal occurrence and not as a constant factor affecting industry. Normal profits would, then, be the profits which tend to prevail in industry under conditions of peace.

While this is a more strictly scientific definition of normal profits, it no doubt is less in accord with the popular notion. There the idea of a necessary or fair profit is a vital part of the concept. Since each reader will probably have his own notions of what constitutes a normal profit which is fair, or at least necessary, the most helpful procedure here will be to set forth the facts concerning the relation of profits to invested capital during the war, and, so far as they are available, during peace times as well. To these facts the reader can then apply his own yardstick of

necessary profits and can draw his own conclusions concerning the existence or non-existence of profiteering.

One of the difficulties in attacking the problem of profits has been the paucity of our data. Previous to the inauguration of the excess profits tax our dependable information concerning the relation of profits to invested capital was limited almost entirely to the fields of banking, railroading and public utilities. Even in those fields the material has never been as carefully analyzed as the importance of the subject warrants.

Despite the fact that the Comptroller of the Currency has reported the earnings of national banks and the ratio of those earnings to capital and surplus for fifty years, we have today no adequate analysis of the size or of the fluctuation of banking profits. In the railroad and public utility field a considerable amount has been done in connection with rate cases and with public investigations. As a result of these investigations the public mind had come to consider six to eight per cent. a normal profit for railroads and public utilities, although it is a matter of common knowledge that the ratio of earnings to invested capital often falls well below even six per cent.

In the industrial and mercantile field we have a study by the U. S. Commissioner of Corporations of the profits of the United States Steel Corporation before 1910 and a comparison of those profits with a readjusted figure of invested capital. The Federal Trade Commission, too, has made investigations and published results for a few industries. Some studies have also been made by individuals. J. E. Sterrett in an article in the American Economic Review, March, 1916, shows the ratio of earnings to investment for 158 corporations. Mr. Jean Paul Muller has recently issued a volume of "Financial Statistics" of industrial and mining companies, showing the ratio of earnings to net worth for 250 of these industrial corporations.

But it remained for the excess profits tax to furnish us with comprehensive statistics concerning the rate of business profits. In making their reports for the purpose of administering that tax, corporations have been required to report their earnings not merely for the war period but for the pre-war years, 1911, 1912 and 1913, as well. Unfortunately the Treasury Department has never made a comprehensive compilation for all concerns, showing the number of corporations and the amounts of capital which earn various rates of

profits. Several compilations have, however, been prepared for special purposes.

The most important of these covers 31,500 corporations for the year 1917. This compilation was published in a volume entitled "Corporate Earnings and Government Revenues," prepared in response to a Senate Resolution of June 6, 1918. It groups these concerns according to industries and shows the capital stock, the invested capital, the net income and the taxes paid for each corporation in 1917. It also shows capital stock and net income, but not the invested capital, for 1916. Unfortunately, the volume is little more than a great mass of raw material. The data was not even totaled for industries; nor are the corporations grouped according to the percentage which they earned on invested capital. The writer has made a compilation from the material used in the preparation of this volume. In the table on page 37 the corporations have been grouped on the basis of the percentage of net earnings to invested capital for 1917 for each concern. The total net income of this group of corporations amounted to $4,760,993,966, an amount well in excess of the entire net income reported by all corporations in the United States in 1913, the highest pre-war year. Their invested capital was, in round numbers, twenty-

two billion dollars. They earned, therefore, on the average, 21.7 per cent. on their invested capital. More than one-half of the net income was earned by concerns which made 30 per cent. or over on their invested capital, and more than one-third of it by those who made over 40 per cent. These are their earnings on invested capital, and not on capital stock.

In drawing conclusions from this table with respect to the general rate of earnings upon invested capital it must be borne in mind that only corporations which earned fifteen per cent. or more on their capital stock are included. The least profitable corporations would automatically be excluded, therefore, as would those corporations which made no net income but suffered an actual deficit. According to the Treasury reports there were 119,000 corporations showing an aggregate deficit of $629,607,562 in 1917.

But while this table excludes corporations earning less than fifteen per cent. on their capital stock, it does not include all the corporations which made fifteen per cent. or over on capital stock. There were 55,000 such corporations all told, only 31,500 of which are here presented.

One thing the facts here cited show clearly: profits, at least during the war period, do not

NET INCOME AND EXCESS PROFITS TAXES OF 31,045 CORPORATIONS, 1917

Income Range	Net Income Before Taxes	Income After Taxes	Invested Capital	Percent Net Income to Invested Capital Before Taxes	After Taxes
Under 10%	477,013,475	475,013,475	6,250,000,000	7.6	7.6
10-15%	389,211,225	359,368,980	3,000,000,000	13.0	12.0
15-20%	578,014,793	513,411,095	3,400,000,000	17.0	15.1
20-25%	566,798,658	481,519,128	2,600,000,000	21.8	18.5
25-30%	324,598,523	260,729,188	1,200,000,000	27.0	21.7
30-33%	301,185,586	234,152,072	1,000,000,000	30.1	23.4
33-40%	389,700,328	285,680,131	1,100,000,000	35.4	26.0
40-50%	1,189,718,966	794,487,586	2,700,000,000	44.1	29.4
50-75%	293,184,616	176,273,846	500,000,000	58.6	35.2
75-100%	133,416,043	71,066,417	150,000,000	89.0	47.4
Over 100%	118,151,753	67,060,701	100,000,000	118.1	67.0
Total	4,760,933,966	3,718,762,619	22,000,000,000	21.7	16.9

center about a normal or average point, as does the rate of interest. They vary from actual losses in some cases to earnings of over 100 per cent. in others.

The percentages at which the profits bulk largest vary widely for different industries. The table on page 39 shows that for railroad and public utility industries the great mass of income falls under 10 per cent. In banking the 10 to 15 per cent. group is the principal one. Manufacturing, mining and mercantile fall largely in the 30 to 50 per cent. range, but also have a substantial amount earning from 15 to 25 per cent. Transportation by water showed, on the average, the highest of any group in 1917, falling into the 75 to 100 per cent. class. But every class is subject to an enormously wide degree of dispersion. This would be even more striking than the table indicates if the amount under 10 per cent. had been divided into smaller ranges.

To what extent is this wide spread in the range of earnings characteristic of other periods? The volume from which the 31,000 corporations are taken gives the net income for 1916 as well as 1917. While the invested capital is not given for that year, it is possible to compare the net income of the corporations which fell into any

STATISTICS OF 30,892 CORPORATIONS BY INDUSTRIES. NET INCOME FOR 1917 BY CLASSES

Percentage of net Inc. to Capital	Financial	Railroads and Public Utilities	Transportation by Water	Agriculture	Manufacturing, Mining and Mercantile	Total
Under 10%	$13,196,481	$349,189,634	$1,234,161	$11,406,299	$101,952,626	$476,979,201
10-15%	29,993,941	70,634,613	476,988	12,329,659	275,712,345	389,147,546
15-20%	6,086,476	21,207,001	342,609	11,727,481	537,246,584	576,610,151
20-25%	4,997,479	5,053,306	795,384	8,918,816	546,806,982	566,571,967
25-20%	1,098,856	3,531	2,337,854	6,846,975	313,941,558	324,228,784
30-40%	767,187	30,486	7,000,892	13,042,739	668,613,578	689,454,882
40-50%	182,685	.....	3,728,476	1,837,818	1,183,859,402	1,189,608,381
50-75%	50,299	.....	4,496,975	12,754,592	275,655,773	292,957,639
75-100%	9,809	.....	21,542,242	449,198	111,374,358	133,375,587
Over 100%	123,018	52,229	1,395,374	296,999	116,164,233	118,031,853
Total	$56,506,241	$446,170,800	$43,350,955	$79,610,576	$4,131,327,419	$4,756,965,991

particular range in 1917 with the previous year. The writer has made this compilation for a number of industries. The results show that the spread in 1916 is quite as wide as in 1917.

A comparison for a group of identical corporations in 1918 with 1917 shows that the net income for 1918 was a slightly lower percentage of the investment than in 1917. But the variation in the percentages earned by different corporations is quite as pronounced in one year as in the other. The number of corporations earning less than 8 per cent. was slightly larger in 1918, and the number earning over 100 per cent. was slightly smaller. But the large middle group between 10 per cent. and 100 per cent. was almost exactly the same in number in the two years.

What of the pre-war period? How do average profits for 1911, 1912 and 1913 compare with these of 1916 to 1918? Is there a similar diversity in the rates which individual concerns earn on their invested capital? For 10,020 corporations taken as a sample, the average net income for the three years 1911-1913 totaled $552,349,682. Of this amount $46,000,000 was earned by people who made less than 8 per cent.; $168,000,000 by concerns earning between 8 to 12 per cent.; $163,000,000 by people earning between 12 and 20 per cent.;

and $175,000,000 by corporations earning from 20 to over 100 per cent. The next table gives the detailed distribution.

AVERAGE NET INCOME OF 10,020 CORPORATIONS FOR THE THREE YEARS, 1911 TO 1913

Ratio of Net Income to Invested Capital	Number	Net Income
Under 6%	1,368	$ 19,010,762
6-8%	737	26,769,920
8-12%	2,415	168,246,274
12-20%	2,929	163,090,783
20-30%	1,366	93,003,819
30-40%	553	35,429,768
40-50%	233	17,817,160
50-75%	259	16,656,266
75-100%	75	7,605,757
100% and over	85	4,719,173
Total	10,020	$552,349,682

For nearly 7,000 of these corporations we have the invested capital and net income for identical corporations for the pre-war period and for 1918. This smaller group had an average net income in 1911-1913 of $212,000,000. This was 11 per cent. upon their invested capital of $1,932,000,000. In 1918 they earned $427,000,000 on an invested capital of $2,845,000,000, being at the rate of 15 per cent. The diversity in this sub-division is quite as pronounced as it is in the entire group of 10,000.

In banking we have a field of industry in which we would expect less diversity in earnings. But a glance at the next table will convince the reader

that the course of banking profits is by no means smooth and even. It shows the rate which all national banks in the city of New York, in the country as a whole, and in various sections have earned upon their capital and surplus. There is pronounced diversity in the rate of profits in these different sections. This much we would probably expect. But more striking still are the fluctuations within the geographical districts. In New York City earnings moved from 7.75 per cent. in 1899 to 20.01 in 1902, then back to 8.54 in 1905. They rose from 7.77 per cent. in 1915, the first year of the war, to 19.04 in 1919.

PER CENT. NET EARNINGS TO CAPITAL AND SURPLUS, NATIONAL BANKS

Year ended June 30	New York City	New England States	Middle Western States	Southern States	Pacific States	Total United States
1900	16.69	6.86	10.10	10.88	11.68	8.2
1901	10.52	5.73	9.07	11.63	11.54	10.0
1902	20.01	5.73	10.69	11.64	13.19	10.5
1903	12.23	6.72	10.25	11.57	14.22	10.1
1904	13.68	5.96	9.62	11.22	12.95	10.4
1905	8.54	5.70	8.81	11.30	12.84	9.0
1906	11.80	7.59	9.75	11.69	13.69	9.5
1907	12.86	8.43	10.54	12.40	14.93	16.4
1908	10.60	7.84	9.11	9.77	11.84	9.10
1909	9.89	6.43	8.31	9.50	11.33	8.72
1910	10.90	8.68	8.89	10.10	12.19	9.67
1911	8.60	7.79	10.82	10.09	10.54	9.35
1912	9.48	7.02	8.19	9.62	9.38	8.59
1913	10.30	7.94	8.55	10.10	10.22	9.06
1914	8.85	6.50	8.79	9.55	8.22	8.39
1915	7.77	5.91	7.98	7.59	7.23	7.08
1916	11.78	8.13	8.29	8.32	7.49	8.76
1917	15.52	9.04	10.10	9.97	8.56	10.52
1918	15.01	9.62	11.30	10.96	9.25	11.09
1919	19.04	9.93	11.21	11.14	10.63	12.11

The variations in the earnings of individual banks are, of course, much greater than this, for in this table all the banks of a single section of the country are merged and the more radical departures from the average are erased. This is well illustrated by the figures for ten of the largest banks in New York City whose earnings were presented to Congress on May 18, 1920, by Senator Robert Owen. Their combined capital and surplus was $243,000,000, with earnings of $40,761,742, or 16.77 per cent. The earnings of the individual banks varied from 10.45 per cent. to 35.78 per cent. on capital and surplus for the year ended December 31, 1919. These are all well-established, prosperous banks. The outsider would naturally suppose that in a fully informed and highly competitive situation such as exists upon the New York money market, earnings must approximate a uniform rate of profits.

Yet in the same year we find some of these institutions earning a rate three and one-half times as high as others. Bank No. 1 with a capital and surplus one-third that of Bank No. 9 earned almost exactly the same amount net. The capital and surplus and the net earnings of these ten banks were as follows:

EARNINGS OF NEW YORK CITY BANKS FOR THE YEAR ENDED DECEMBER 31, 1919

Bank	Net Earnings	Capital and Surplus	Per cent. Net Earnings to Capital and Surplus
No. 1.....	$7,155,804	$20,000,000	35.8
No. 2.....	2,920,506	12,000,000	24.3
No. 3.....	2,885,553	12,000,000	24.0
No. 4.....	5,303,744	30,000,000	17.7
No. 5.....	1,698,945	10,000,000	17.0
No. 6.....	2,009,629	12,000,000	16.7
No. 7.....	2,505,638	17,000,000	14.7
No. 8.....	6,873,634	50,000,000	13.7
No. 9.....	7,318,864	60,000,000	12.2
No. 10.....	2,089,425	20,000,000	10.4
Total	$40,761,742	$243,000,000	16.8

It is difficult to secure the earnings of individual banks for other parts of the country, but the Treasury volume, "Corporate Earnings and Government Revenues," shows the invested capital and net income of 1,616 commercial banks, including both national and state. The results are shown below in tabulated form.

1,616 COMMERCIAL BANKS

Per cent. Earnings to Capital	No. Firms	Invested Capital 1917	Net Income 1917	Net Income 1916
Less than 8%.	107	$ 35,088,303	$ 2,303,042	$ 2,234,477
8-12%	380	107,332,335	11,150,823	9,487,297
12-16%	468	53,612,373	7,357,643	6,048,510
16-20%	296	21,597,526	3,770,289	3,217,548
20-25%	196	7,219,983	1,591,193	1,203,214
25-30%	81	2,124,708	576,610	459,309
30-40%	68	2,085,134	690,370	490,221
40-50%	16	409,188	173,747	140,496
50-75%	4	88,836	50,299	37,160
Total	1,616	$229,558,386	$27,663,216	$23,318,232

The average earnings of these 1,616 banks are not much higher than those of all national banks in the United States. It is reasonable to suppose, therefore, that a list of all banks would show fully as great a diversity of earnings as is exhibited by these. In fact, the diversity would be greater, for this group contains only banks which earned 15 per cent. or more on capital stock.

It is unnecessary to encumber this volume with further evidence concerning the wide diversity in the profitableness of individual enterprises. To the extent that the economists and the general public have based their reasoning about normal profits upon an assumed minimum toward which profits tend or an average around which they group themselves closely, they have proceeded upon an erroneous assumption. The most that can be said for normality of profits is that the amount of capital that earns the average rate of profits will remain a fairly constant percentage of all capital. Also, that the amount of capital that earns less than the average rate or more than the average remains about the same one year with another. But the average itself is highly variable and the diversity of earnings for individual establishments is enormous even in so conservative and steady a business as banking. In fields like manu-

facturing and mining it has varied widely under the influence of war conditions. Even in times of peace there is a pronounced variation of earnings from industry to industry within the same year and in the earnings of the same establishment from year to year. It is quite probable that there were a considerable number of people, even in times of peace, who were earning at a rate fully as high as the so-called profiteers made during the war.

The fact is that profits are a highly fortuitous and uncertain element. The causes of their fluctuation are many and complex, and when a new series of events which affects prices and demand are brought into play by a world war, the resulting increases in profits come about quite naturally and without malice aforethought by those who enjoy the fruits of industry. Large profits, like increased production and high prices, their chief causes, are a part of the inevitable grist which war grinds out of our industrial machinery. Nothing but our puritanical habit of seeking some criminal intent behind every difficult and undesirable economic situation could have driven us into the state of mind in which the American public finds itself towards those who have enjoyed these profits. Unfortunate indeed is the nation that

has no more sensible way of dealing with unusual industrial results than to cast the beneficiaries into jail.

England's method of handling a similar situation was much more scientific. She accepted frankly the fact that war brings increased profits, and proceeded to take by taxation 80 per cent. of the additional profits attributable to war. This left the ordinary machinery of the market to go on undisturbed, and covered into the public treasury those profits which appeared as a by-product of the war.

Whether the American public will feel that these large differentials, which have always existed in the case of some corporations, shall remain in their hands or shall be subjected to an excess profits tax, remains to be seen. All that is attempted here is to set forth the facts in order that we may proceed with a fuller knowledge of the situation. Heretofore we have proceeded upon an assumption with respect to normal profits which was largely erroneous.

No final explanation of the enormous rise in profits which has occurred during the war can be made without explaining the course of prices and of wages. That is the task of succeeding chapters. It is impossible to grasp the causes of war profits

apart from the causes which dominated war prices and war wages. Nor is it possible to say whether the existence of these enormous profits during the war has been good or ill until we have seen the uses to which those profits have been put by those who have received them. That is the task of our next chapter.

CHAPTER IV

THE USES TO WHICH PROFITS ARE PUT

In order to pass judgment upon the effect of the growth of profits upon our industrial life we must know the uses to which these profits are put.

The large profits which resulted from war prices and war production became, immediately speaking, the property of the corporations. They did not, however, go directly to the stockholders of these concerns as sums available for personal expenditure. First of all the government exercised its sovereign power of taxation and covered a portion thereof into the public treasury.

Next the management and directorate of these concerns decided that a large part of what remained after taxes should be retained in the business for the purpose of extending plant or paying debts. A part was then paid to the stockholders as dividends. Less than 45 per cent. of the net income of all corporations was distributed in dividends between 1916 and 1919. Since 60 per cent. of all dividends are paid to people with incomes of $20,000 and over, these in turn were sub-

jected to high surtax rates, while a considerable portion of what was left to the individual after the payment of taxes was saved and invested in new enterprises and plant extensions. Only the remainder was spent on personal consumption.

The first step, then, in the disposition of business profits is the payment to government of a certain portion of these profits as taxes. In Chapter II we have shown the amount of taxes paid to the federal government and the net income remaining after such payment. From 1909 to 1915 these taxes absorbed one per cent. of the corporate profits. In 1916 two per cent. was paid to the government. In 1917 the increase in the rate of the corporation income tax and the imposition of the excess profits tax increased the percentage of profits paid over to the federal government to 20 per cent. of the corporate earnings. In 1918 a further increase in rates and the addition of a war profits tax took 33 per cent. in taxes, while with a reduction of rates in 1919 the percentage fell again to about 21 per cent. Approximately seven billion dollars of corporate profits have thus been contributed to the federal government in three years. This is an amount equal to twice the average annual earnings of all corporations from 1909 to 1913.

The amount paid in state and local taxes is available only for 1917. In that year the corporations had paid to these political units taxes amounting to $1,040,621,000. These were included in operating expenses and deducted in reporting their net income to the Treasury. Since state and local taxes have been gradually rising for some years it is fair to assume that the taxes for 1916 are slightly less than one billion dollars while those for 1918 are somewhat in excess of the preceding year. State and local taxes for these three years thus amounted to three billion dollars. The total amount contributed during this period by the corporations of the United States to state and federal governments was therefore ten billion dollars.

We have included state and local taxes with federal taxes for the purposes of this discussion, despite the fact that those taxes were deducted in arriving at net income reported for federal taxation. For this deduction does not alter the fact that the taxes collected by the state and local governments constitute a subtraction from the income of the corporation. The table on page 52 shows the net income of all corporations by classes, and the amount paid in federal, state, and local taxes.

The ratio of excess profits taxes to net income

ALL CORPORATIONS OF THE UNITED STATES SHOWING NET INCOME
By Classes
1917

Class	Net Income	Domestic Taxes	Income Before any Taxes	State and Local Taxes and Federal Income and Ex. Prof Taxes	% Taxes to Income Before Taxes
Financial	$ 962,860,193	$160,912,236	$ 1,122,872,429	$ 249,692,297	22.2%
Industrial	6,809,238,432	359,829,467	7,169,067,899	1,928,880,186	26.9%
Railroad and Service	1,303,824,004	258,554,836	1,562,378,840	385,602,852	24.6%
Mercantile	1,481,060,780	104,776,527	1,585,837,307	429,623,913	27.0%
Miscellaneous	173,376,802	23,481,363	196,858,165	55,300,950	28.0%
Total	$10,730,360,211	$906,654,429	$11,637,014,640	$3,049,100,198	26.1%

varies widely. It amounts to over 18 per cent. for industrial concerns and to less than 5 per cent. for public utilities and financial corporations. But when all taxes, federal, state and local, are compared with the net income of the different classes of corporations before paying any taxes the percentage of earnings contributed to the government is surprisingly alike for the various classes, as is shown by the last column of the table.

The reason is a simple one but is not generally understood by the public. An investigation of state and local taxation shows that railroads, banks and public utilities pay a very much higher rate of tax on the value of their property or on the income earned than do mining, manufacturing and mercantile corporations. One of the most striking illustrations is found in the situation set forth by the Special Commission of Inquiry into Taxation for the State of Michigan in 1911. This Commission estimated that the rate of taxes upon property values in the case of railroads was over 2 per cent., in the case of banks and trust companies 1.7 per cent., and in the case of manufacturers .5 per cent. The taxes in that state amounted to over 30 per cent. of the net earnings of railroads and to but 6 per cent. of the net earnings of manufacturing corporations.

The report of the Special Legislative Committee on Taxation for the state of New York in 1915 shows a similar disparity in the percentage of income contributed for state and local taxes by various industries in New York. An independent report of a committee appointed by the Trust Companies Association in the same year places the ratio of taxes to net income at 20 per cent. for public utilities, 15 per cent. for trust companies and banks, and 3 per cent. for manufacturers. This situation has since been remedied to some extent in New York by a state income tax of 3 per cent. upon manufacturing corporations.

But the ten billion dollars taken from the corporations directly does not exhaust the story of the government's share in these profits. In 1916 $2,136 million of dividends were reported as income by individuals in their tax returns. In 1917 $2,848 million were so reported. Dividends are received primarily by people with large incomes, and are therefore subject to the highest surtax rates. The table below shows for such individuals the actual per cent. of dividends to net income for 1916 and 1917. They are not available for any later years.

INDIVIDUAL INCOME TAX RETURNS

Per cent. of dividends to net income

1916–1917

Income class	1916	1917
$ 4,000 to $ 5,000	4.2%	8.4%
5,000 " 10,000	13.9	15.3
10,000 " 20,000	27.5	29.2
20,000 " 40,000	37.2	39.8
40,000 " 60,000	42.1	46.5
60,000 " 80,000	44.5	50.4
80,000 " 100,000	46.9	51.3
100,000 " 150,000	44.4	53.2
150,000 " 200,000	48.3	54.1
200,000 " 250,000	46.2	55.9
250,000 " 300,000	51.3	60.8
300,000 " 500,000	46.8	57.0
500,000 " 1,000,000	53.0	67.7
1,000,000 " 1,500,000	51.7	76.6
1,500,000 " 2,000,000	54.4	66.9
2,000,000 and over	64.6	82.8
Average	35.2	34.7

During the three years 1917 to 1919 a total of more than one billion dollars was paid in taxes to the government by individuals on account of these dividends. Various income taxes were levied by the states in addition, but these were at comparatively low rates. In all the federal, state, and local governments have taken in taxes nearly four billion dollars annually since 1917. This was the first claim upon profits. To the extent that taxes are paid in this manner, the general public shares in profits by being relieved of a corresponding amount of taxes which would otherwise be imposed upon them.

Profits which are not paid to the government as taxes or distributed to the stockholders as dividends are retained as an addition to corporate surplus. These profits become either an addition to the liquid assets of the corporation in the shape of cash, bank deposits, or accounts receivable; an addition to the tangible assets in the shape of plant facilities or additional materials and supplies or goods in process; or they are used for the purchase of government or other securities or the payment of debts. These corporate savings are one of the principal sources of capital accumulation in America. The failure to realize this fact is probably responsible for the derogation in which we have held ourselves in this matter of savings.

The volume of savings in the United States as compared with other countries has usually been underestimated, partly because of the slight attention given to certain sources of accumulation and partly because of a failure to distinguish between accumulation and investment. In such a country as France, for example, a much larger proportion of the annual accumulations pass through the investment market than in the United States. France is less industrial than the United States; the corporate form of business organization is less common; and there are fewer oppor-

tunities within the country calling for capital. The consequence is that saving is likely to take the form of an investment through the purchase of securities, quite likely of foreign securities. Such saving becomes evident and lends itself readily to statistical measurement. But a comparison of annual savings based upon the sale of securities to investors would be valid only if the same proportion of savings in France and the United States were put into securities. There is in France little to correspond to the great volume of corporate savings annually accumulated in the United States. The additions to corporate surplus do not normally pass through the security market and so commonly attract little attention, but they are none the less real. The railroads and industrial concerns in the United States have grown at a rapid rate, and in recent years they have added largely to the capital accumulations of the country through their additions to surplus.

The importance of the retention of corporate earnings as a source of capital accumulation is shown by the statements of state and national banks. On June 30, 1919, the capital, surplus, and undivided profits of national, state, savings, and private banks and loan and trust companies amounted to $5,445,248,000. Of this amount

$2,437,365,000 represented the par value of the capital stock outstanding, and $3,007,883,000 represented the surplus and undivided profits. Some of this capital stock was issued as stock dividends or purchased with cash dividends declared for this purpose and charged against previously accumulated surplus; and some of the surplus appearing on the balance sheet was paid in as premium when the capital stock was issued. It is impossible to say how much each of these two items amounts to, but it seems certain that the stock dividends exceed the surpluses paid in as premiums on stock. The capital of the banks created through the retention of earnings certainly exceeds that contributed by the stockholders by twenty-five per cent. It is by no means improbable that the retained earnings exceed the original contribution of the stockholders by fifty per cent.

In other lines of industry the data are not so complete or so satisfactory as in banking. Neither the accounting for plant and other assets which represent invested capital nor the statements of income and profits are on the same simple and dependable basis in such industries as railroads, public utilities, mining, and manufacturing, as they are in the case of banking. The charges to capital and charges to revenue allow compara-

tively little discretion in the banking business. The problem of depreciation is almost entirely absent, and the item of maintenance and repairs is practically insignificant.

All this is different in industrial enterprises. Here the decision to charge every doubtful item to operating expense rather than to capital will yield a widely different showing of profits than would result if all doubts were resolved in favor of a charge against capital. In both cases an addition to physical assets would result, but in one case this would show in the accounts as a reinvestment of retained profits, while in the other case it would not show, but would be buried in operating expenses, the assumption being that this expense resulted merely in the maintenance of the property rather than in additions to capital. Upon the whole anyone experienced in such matters is pretty well convinced that the accounts of most industrial corporations understate profits rather than overstate them. The same is probably true of railroads and public utilities taken as a whole, though here the case is not so clear, especially in the earlier stages of the enterprise.

In the case of railroads this policy of building up property out of earnings is well established. The policy of the Pennsylvania lines is

proverbial, but no exact figures are available. An investigation of the accounts of the Lake Shore & Michigan Southern Railroad in 1913 showed that total earnings of that system from 1870 to 1914 inclusive amounted to over $322 million, after adjusting the accounts to bring the statement of earnings into conformity with the Interstate Commerce Commission classification. Of this amount $167 million was distributed in dividends, and $155 million, or 48 per cent. was retained as surplus. The total stock outstanding in 1914 was $50 million; it had stood at this figure for many years.

Nor has this practice been limited to prosperous lines. The Texas & Pacific Railway, between 1888 and 1915, reinvested earnings amounting to over twenty-five million dollars. During this period it paid nothing whatever on its stock and less than ten million dollars on its income bonds.

A tolerable estimate can be made of the total volume of corporate savings for railroads by using the income statistics shown in the publications of the Interstate Commerce Commission. These show that during the decade 1890-99 the railroads reinvested only $125 million of profits. The next decade, 1900-09, saw ten times that amount reinvested. Since 1910 the amount re-

invested has varied widely. 1910 itself saw the largest amount added to the property out of earnings of any year up to that time, the total reaching $165 million. 1911 and 1912 were ordinary years. 1913 was another prosperous year, in which the corporate saving almost reached the high figure of 1910. In 1914 the dividends exceeded the earnings by $33 million, and the reinvested surplus was small in 1915. From June 30th of that year until the end of 1917, the railroads fared admirably in this respect, and accumulated $1,350 million.

Evidently a much smaller part of the investment in the railroads of this country was made out of profits than in the case of banking. It is probably a safe estimate to say that the total reinvested profits of the railroad industry are not greater than four billion dollars, even after allowing for adjustments in accounting practice which bring the statements into conformity with the Interstate Commerce Commission classifications.

Manufacturing and mining corporations have no statistical record of net income and its disposition comparable to that which exists for banks and railroads. Figures compiled from the published reports of 251 corporations show the results set forth in the table below. Previous to the out-

break of the war these corporations were retaining roughly one-third of their income for reinvestment. During 1916, 1917 and 1918 the proportion rose to over 60 per cent. For the eight-year period they retained an average of more than 50 per cent. of their net income for reinvestment; the total amount thus retained and reinvested during this period approximated $3,600 million.

NET INCOME, DIVIDENDS, AND SURPLUS OF 251 CORPORATIONS

1911–1918

Year	Net Income After Taxes	Dividends	Surplus After Taxes
1911	$ 458,781,665	$307,249,292	$151,532,373
1912	513,401,501	320,491,288	192,910,213
1913	542,109,388	353,872,869	188,236,519
1914	415,335,092	316,471,173	98,863,919
1915	698,703,872	347,176,559	351,527,313
1916	1,402,745,696	555,822,063	846,923,633
1917	1,600,906,267	618,006,214	982,900,053
1918	1,341,207,084	582,776,283	758,430,801

These corporations have outstanding at the present time approximately $6,500 million of capital stock. For the ten-year period, 1910-19 inclusive, it seems pretty certain that their total reinvested income will amount to $4,500 million, or 75 per cent. of the par value of their capital stock outstanding. There are numerous isolated cases of establishments which have reinvested in war profits alone an amount in excess of all the capital stock outstanding. Many of the extremely profitable corporations, like Corn Products Refining,

have paid no dividends whatever. And others, like Republic Iron & Steel, have paid out only a small fraction of their earnings. Gigantic enterprises, such as the Ford Motor Company, have been constructed entirely out of profits.

For the smaller corporations, those which are in fact corporations only in name, their stock being closely held, the same thing is true. From the volume, "Corporate Earnings and Government Revenues," previously cited, we have selected 4,508 manufacturing corporations which have invested capital of $100,000 and over but which are not as large as the 251 corporations included in the table above. These corporations show capital stock of $1,619,045,004 and invested capital, as that term is defined under the 1917 excess profits tax law, of $2,947,535,517. Their invested capital amounts to 182 per cent. of their capital stock. Facts like these should help to correct the erroneous popular impression concerning watered stock. It is true that these are selected from among the more profitable corporations, since only companies earning 15 per cent. or more on their capital stock were included in this volume. Yet this probably shows the result of a policy which is pretty generally pursued by directors in the management of corporate enterprises. The table

on the opposite page gives the capital stock and invested capital for the companies by industries.

What is the sum total of savings made in this manner by all the corporations of the country? It is possible to arrive at a tolerable estimate of the surplus reinvested out of the net income reported by the various classes of corporations, after deducting income and excess profits taxes. The amount reported as net income has been divided between dividends on the one hand and surplus on the other according to the ratios revealed by an extensive process of sampling. To obtain these ratios each class of corporations and each year has been taken by itself and a study made of the published reports. The results obtained by applying these ratios to the net incomes reported are set forth in the table below.

ALL CORPORATIONS IN THE UNITED STATES REPORTING NET INCOME

(000 omitted)

Year	Net Income After Taxes	Dividends Paid	Surplus Reinvested
1909	$ 3,125,481	$2,125,481	$1,000,000
1910	3,360,251	2,290,251	1,070,000
1911	3,213,706	2,225,685	988,021
1912	3,832,151	2,498,149	1,334,002
1913	4,339,551	2,871,435	1,468,116
1914	3,710,600	2,411,900	1,298,700
1915	5,184,400	2,594,700	2,589,700
1916	8,594,095	3,783,900	4,810,195
1917	8,587,914	4,651,900	3,936,014
1918	*6,300,000	4,250,000	2,050,000
1919	*6,700,000	3,900,000	2,800,000

* Estimated.

4,508 MANUFACTURING CORPORATIONS HAVING INVESTED CAPITAL OF $100,000 AND OVER

Class	Number of Corporations	Capital Stock	Invested Capital	% Invested Capital to Capital Stock
Iron and Steel	972	$460,660,168	$870,213,167	188.8
Metals and Metallurgical Industries	89	50,346,405	78,878,921	156.6
Mining, Coal	250	121,265,026	196,894,829	162.3
Textile Industries	647	265,602,825	439,546,410	165.4
Chemicals and Allied Industries	239	83,575,347	129,913,564	155.4
Special Manufacturing Industries	317	160,858,243	261,104,518	162.3
Stone, Clay and Glass Industries	176	34,575,425	73,344,176	212.1
Paper, Printing, etc.	420	113,904,717	219,755,286	192.9
Leather Manufacturing	159	48,470,153	88,730,222	183.0
Food Preparations	544	142,644,086	237,530,136	166.5
Timber and Wood-working Industries	695	137,142,608	351,624,288	256.4
	4,508	$1,619,045,004	$2,947,535,517	182.0

Contrast one of these figures for corporate savings, that of 1913, for example, with the total savings of other countries. The annual savings of England and Germany were generally estimated at two billion dollars each for the years before the war. In 1913 the corporate savings of the United States were three-fourths this amount. This takes no cognizance of the provision for depreciation amounting to another billion and a half. In a growing community only a small part of this replaces worn out plant; it is all available for utilization of the latest improvements in the arts.

Mr. Keynes gives us a spicy description of the psychology of capital accumulation under our present system in the following words:

"The immense accumulations of fixed capital which, to the great benefit of mankind, were built up during the half century before the war, could never have come about in a Society where wealth was divided equitably. The railways of the world, which that age built as a monument to posterity, were, not less than the Pyramids of Egypt, the work of labor which was not free to consume in immediate enjoyment the full equivalent of its efforts.

"Thus this remarkable system depended for its growth on a double bluff or deception. On the

one hand the laboring classes accepted from ignorance or powerlessness, or were compelled, persuaded, or cajoled, by custom, convention, authority and the well-established order of Society, into accepting, a situation in which they could call their own very little of the cake that they and nature and the capitalists were co-operating to produce. And on the other hand the capitalist classes were allowed to call the best part of the cake theirs and were theoretically free to consume it, on the tacit underlying condition that they consumed very little of it in practice. The duty of 'saving' became nine-tenths of virtue and the growth of the cake the object of true religion. There grew round the non-consumption of the cake all those instincts of puritanism which in other ages has withdrawn itself from the world and has neglected the arts of production as well as those of enjoyment. And so the cake increased; but to what end was not clearly contemplated. Individuals would be exhorted not so much to abstain as to defer, and to cultivate the pleasures of security and anticipation. Saving was for old age or your children; but this was only in theory, —the virtue of the cake was that it was never to be consumed, neither by you nor by your children after you."

If the duty of saving was, as he says, nine-tenths of personal virtue before the war, increase of the capital equipment of the corporation through the retention of earnings involving little or no consciousness of painful abstinence on the part of the stockholders was nine-tenths of the wisdom of corporate management. It is vicarious saving in which the directorate takes upon itself all the groaning and backache involved in the decision to postpone consumption to the future.

As a consequence only one-third of the enormous war profits ever got into the hands of the stockholders. That third the government insisted on sharing with them by subjecting it to surtaxes. A substantial portion of what the stockholder had left went to furnish the great body of the investment funds of the country. It is no exaggeration to say that not more than one-fourth, and probably not more than one-fifth, of the whole volume of corporate profits was actually spent by the stockholders of these concerns. The other 80 per cent. went for taxes, for loans to finance the war, and to furnish the funds for industrial expansion.

CHAPTER V

THE RATE OF INTEREST

The significance of the statement that profits constitute the heart of American business, and that the fluctuations in profits are vital in explaining industrial and financial process, becomes apparent if we trace the course of the rate of interest during the last five years and the manner in which it has been affected by the course of profits. Amid all the confusion of thought which followed the outbreak of the war, everyone seemed confident that the rate of interest would rise sharply if the war continued for any considerable length of time. Instead, it remained low for more than two years and rose only after we entered the conflict. This movement of the rate of interest from the beginning of 1915 to date is so important that it deserves detailed treatment. Such an examination should clarify and advance the theory of interest and should enable us to forecast the future movement of the rate with greater accuracy.

Thinkers have always been put to it to explain why such a thing as interest existed at all. Aris-

totle thought that there was no good reason for its existence. Money was barren; it did not multiply and reproduce itself, and therefore there seemed to him no good grounds for the payment of a hire for its use. If I give to another the use of my fertile field, he can sow it with wheat and his seed is returned to him twentyfold. It seemed natural that I might in all justice ask him to give me a portion of the product in return for the use of the field. It was productive and it seemed reasonable that the owner should share in the product. But if I loaned him a thousand units of my money and he placed it in his wallet or in a strong-box it remained one thousand units until the end of time. How could I justly ask that he return it to me with interest?

Starting with Aristotle's point of view, the medieval church held that there was no ground for the payment of interest, and that the taking of it was anathema. The Socialist school of political economy today likewise asserts the injustice and unreasonableness of interest, and its abolition is one of the prime objects of Socialist reform.

Today we look upon interest simply as a price for the use of capital, and we consider its existence and reasonableness quite as natural as the prices for other commodities. Aside from the

Socialists no one is particularly concerned, as the ancients were, about the justice of interest. While capital is usually loaned in the form of money, which is barren, we know that people desire not money but the goods which it will buy. These are productive. People who have tools, machines, fertile fields, and ships find them an aid in the creation of goods and services as well as a source of profit. The objection which was based upon the barrenness of money capital has therefore disappeared. Most economists believe today that interest is an element which would have to be reckoned as a cost of production and which would therefore enter into price in any industrial system.

Accepting interest as a part of the regular order of things, the business man and the financier are concerned primarily with the forces which underlie fluctuations in its rate. They wish to know the causes of the rise and fall in the rate of interest so that they may forecast these movements and order their business conduct accordingly. The experiences of the war taught us that our knowledge of these causes is as yet quite inadequate. The widespread belief of bankers and economists that the rates of interest in the United States would rise quickly and sharply as a result

of the war in Europe seemed to have the support of logic and historical precedent.

The rate of interest is the price paid for the use of capital. Being a price it is governed by supply and demand upon the money market. Previous to 1914 we had been receiving considerable supplies of capital from Europe; these would surely be cut off. In addition Europe was certain to demand from us a return of some of the capital which she had loaned us in the past decades. She would also try to borrow through the flotation of her government bonds, but these, we rather thought, would not find a ready market in a country so little given to saving and investment as America. Nor could we foresee an increase in the supply of American capital through new and additional savings sufficient to meet this demand and keep the rate of interest low. The consequence would be a rise in the rate of interest brought on by this checking of supply and the increase in demand.

Certainly one never felt himself upon safer and saner ground than when prophesying after this manner in the class-room, on the platform, or in the press, and yet it did not come to pass. Our supply was cut off, to be sure. By the resale of American securities and by the flotation of gov-

ernment loans during 1915 and 1916 Europe was more successful in demanding and obtaining capital here than either she or we had thought possible. Between five and six billion dollars of capital were drawn from this country during those two years. In addition to this export demand we were expanding our own industrial plants at an unprecedented rate. All expectations of an increased demand for capital in the United States were, therefore, realized two or three times over. But at the end of 1916 the rates for both short-time bank loans and long-time investment loans were still low.

The course of American interest rates for the decade before the war had shown conclusively that they were especially sensitive to variations in demand. In 1903 it was possible to market high-grade railroad and other bonds on a three and a half per cent. basis. By 1913 the best that the most stable corporations were able to do was to market their obligations on a five per cent. basis. Roughly, the rate had risen by 40 per cent. One consequence of this rise in the rate of interest was the financing of the capital needs of corporations through the issue of short-term notes, which were commonly put out at a rate which brought the cost of capital to more than six per cent.

Throughout this decade, 1903-1913, there was without doubt an increase in the supply of capital available for investment. The individual deposits of all banks shown in the Reports of the Comptroller of the Currency were $9.5 billion in 1903 and $17.5 in 1913. The productivity of the nation and its volume of output was larger than it had been for any previous period of our history. The output of copper had risen from 700 million pounds to 1,224 million; the production of iron from 18 million to 30 million; the production of cotton from 10 million to 14 million bales; of wheat from 600 million to 760 million bushels. The value added by manufacturing industries had increased from $6.3 billion to $10 billion, and the value of farm products from $6 billion to almost $10 billion. The supply of capital was undoubtedly growing throughout the decade.

But demand for capital was increasing more rapidly than the supply. As a result an ever-rising rate of interest cut off the less important uses for that capital and reduced the demand to the point where it was covered by the available investment funds. The active causes of the increase in the rate of interest during this decade must therefore be sought in the forces which were increasing demand.

One of the two principal uses of capital is found in the industrial needs for plant extension and for additions to working capital in the form of materials and supplies. New factories, new machinery, larger and more expensive electric light and power plants, extensions in our telegraph and telephone systems, additional railroad equipment, additional railway tracks with heavier rails and rock ballast in place of gravel; all of these constituted a demand for capital. These additional plant facilities are capital in the time-honored economic sense of produced goods devoted to further production. Their distinctive characteristic is that their construction and use take time and so involve a period of waiting, or "abstinence," as the older economists called it. If they are to be produced, consumption must be postponed. A railroad is without doubt an efficient means of transportation, but one cannot exhaust its transportation uses in a single year. Its construction requires the expenditure of labor and materials in a project which will return the value of the original labor and material only over a series of years. Nothing can be devoted to the extension of our capital equipment except the excess of our production over our consumption.

The demand for this capital equipment was

growing at an enormous pace in the decade 1903-1913. Our manufacturing capital alone as shown by the Census of Manufactures increased from $12 billion to $22 billion during these years. Despite the fact that the Census warns us that the statistics of capital are defective, it is pretty certain that the increase in capital invested is fully equal to that shown by a comparison of the two sets of figures. The primary horsepower consumed in these establishments furnishes evidence that the growth of physical capital was roughly proportional to the increase in investment. In 1914 the primary horsepower in manufactures was 22 million, as against 13 million in 1904. Industries like automobile manufactures grew from insignificant beginnings in 1903 to first-rate proportions in 1914. Manufactures of such staples as textile fabrics increased the primary horsepower used and the value added by manufacture by 50 per cent. The comparable increase in the manufacture of agricultural implements was 40 per cent.; in women's clothing 100 per cent.; in electrical machinery 100 per cent. In practically all lines the increase had been tremendous.

Even in the case of railroads the increase in physical equipment during this decade is com-

monly underestimated. The total tractive power of all locomotives in the United States during 1913 was 1,847 million pounds, as against 941 million in 1903; the capacity of freight cars 86 million tons, as against 48 million in 1903. In other words, the amount of tractive power and freight car capacity added by the railroads in this decade was practically equal to that which had been accumulated in more than half a century previous to 1903. The increase in the value of railroads and their equipment shown by the Census for the eight years, 1904-12, amounted to almost 50 per cent.

Public utilities like the telephones and the electric light and power plants showed the most astonishing growth in capital investment of any field of industry. The number of telephones in use in the entire Bell system in 1903 was approximately 1,500,000. By 1913 it had grown to 7,500,000. The cost of construction of all telephones and equipment in the United States in 1902 was $389 million. Between that date and 1912 the Bell Telephone System alone invested over $500 million in plant equipment. The cost of construction and equipment and of real estate of street and electric railways increased from $2.1 billion in 1902 to $4.6 billion in 1912; while electric light and power com-

panies increased from $504 million in 1902 to $2,175 million in 1912.

In short, in a very large part of American industry, the capital investment of the decade preceding the outbreak of the European war was equal to that which had been made in all the previous years. Since our recovery from the depression of 1893-1896 we have invested as much capital in manufacturing, railroads, public utilities and mines as we had invested in those industries in all our previous history. Obviously this extension of industrial plant was one of the prime causes of the increase in the demand for capital which led to the higher rate of interest.

But the production of goods devoted to further production is not the only source of demand for capital. Certain goods, like houses and automobiles, which do not minister to productive activities, require waiting for their construction and use as much as do factories and railroads. The construction of a house involves the putting forth of a greater volume of productive effort than can be enjoyed or consumed through its use within the year. The same is true of business and public buildings and of durable goods like automobiles. Anyone who has observed the growth of our cities and the improvement in the quality of

every type of building, both public and private, during this decade before the war, must have been impressed by the volume of capital which these building operations absorbed. In the cities of the Middle West, like Detroit, Kansas City, Dallas, Akron, and dozens of others, there are acres upon acres described as "better residence sections" covered by dwellings whose erection has absorbed hundreds of millions of capital during the last two decades. The total assessed value of all buildings in the City of Detroit in 1903 was $77,519,360. The city contained 17 wards at that time. In 1913 one ward had been added and the value of buildings stood at $170,931,030. The basis of assessment remained practically the same. This is entirely exclusive of such suburbs as Highland Park, where the Ford factory is located. The value of automobiles produced in 1914 alone exceeded $500 million. A decade before it amounted to only $30 million. The demand for capital for those building operations and for the purchase of automobiles is the other factor which explains the increase in the rate of interest.

With this experience as a basis for our forecasts it seemed clear that the increase in the European demand for capital would bring about a further rise in the rate of interest if the war con-

tinued for more than a few months. Such was the judgment of those skilled in explaining the course of the money market. The obvious explanation of the failure of our prophecy would seem to be that the supply of capital had increased in such manner as to keep it equal to the demand even at a low rate of interest.

This explanation is borne out by the facts concerning capital accumulation. These facts are not easily discovered, but a study of the available statistics warrants the following conclusions: The excess of production over consumption in the United States in 1913 amounted to $6.5 billion. By 1916 it had risen to $14.5 billion, and by 1918 to $22 billion. The figures as stated for 1918 are before deducting our war expenditures. If the government had not taken these sums by extraordinary taxes they would have been available for investment, either in government bonds or in corporate securities. Since the close of the war the accumulation of capital has decreased materially. Despite the fact that figures today are expressed in fifty-cent dollars, the increase in capital during 1919 was probably less than $15 billion.

There are at present no figures regularly compiled which show directly the capital accumulation of the nation. This has long been the dark-

est portion of the whole field of economic statistics. It is necessary, therefore, to set forth in some detail the manner in which we have arrived at these figures for the growth of capital.

The addition to the wealth of the nation through savings in the period previous to the European War was determined by comparing the wealth of the United States in 1912 with a similar inventory for 1904, as shown by the Census volume, "Wealth, Debt, and Taxation," 1913. In comparing these two inventories to determine the amount added by production during this period, it is necessary to eliminate increases due to price changes and to the increased value of land, because neither of these represents any increase in tangible wealth. After determining the increase, the amount was distributed among the various years on the assumption that the increase was progressive, and a like increase was assumed for 1913.

ESTIMATES OF CAPITAL WEALTH IN THE UNITED STATES, 1912 AND 1904

(*in billions of dollars*)

Item	1912	1904	Increase
Real Estate	$110,676	$62,341	$48,335
Live Stock, farm implements	7,607	4,919	2,688
Manufacturing, railroads, and public utilities	32,505	19,383	13,122
Gold and silver	2,617	1,999	618
All other	34,334	18,462	15,872
Total	$187,739	$107,104	$80,635

According to the above figures, the wealth of this country other than real estate increased by $32 billion during the eight years, 1904-12, or an average of $4 billion per annum. Real estate increased $48 billion or about $6 billion per annum. Much of the increase in the money value of real estate does not represent savings, but is the result of a rise in land values brought about by increased population and industrial activity in the community. The building permits issued in the larger cities give some evidence of investment in new buildings. This amounted in 1913 to about one billion dollars for 273 large urban communities. Besides these improvements in the real estate of large cities there were large investments in towns and villages, and in farm improvements such as draining, clearing, fence and road building, and orchard planting and cultivation. An examination of the real estate assessments of twenty-four states which separate improvements on real estate from land values shows that improvements constitute approximately 40 per cent. of the land values. This group includes such diverse communities as Arizona and Idaho on the one hand, and Greater New York on the other. The total assessed value of these twenty-four states is over $32 billion; the total exclusive of

New York City is $24 billion. It has, therefore, been assumed that 40 per cent. of the increase in real estate values during the period 1904-12 was to be ascribed to improvements. The average annual increase in the value of real estate improvements was therefore $2.4 billion. This, added to the increase of $4 billion per annum in other wealth, gives a total of $6.4 billion as the increase in produced wealth per annum for the period.

Of this increase about one billion is due to a rise in the price level, and not to additional wealth production and saving, leaving $5 billion as the average annual supply of capital for the period. But the increase during the years just before the war was more rapid, and undoubtedly reached the figure of $6.5 billion given above. This estimate is below the estimate of $7.5 billion made by George E. Roberts, of the National City Bank. He, however, makes no deduction for the increase in the price level from 1904 to 1912. It is also slightly under the estimate of Sir George Paish, which appeared in the *London Statist,* May 23, 1914, in which he places the annual growth of wealth in the United States at £1.4 billion.

With this figure as a starting point the next problem is to discover some method of arriv-

ing at the increase in savings for subsequent years.

We have had no official estimate of the national wealth since 1912, therefore it is impossible to proceed as in our pre-war estimates. A large part of the capital accumulated is invested in corporate and government securities, so that the securities absorbed by investors of the nation furnish an approximation to the volume of savings of the country. The table on page 85 shows the available statistics concerning securities issued and marketed, together with gold and securities repurchased from abroad during the period 1913-18. The amount increased from $2,053 million in 1913 to $6,563 million in 1916 and $14,010 million in 1918. In 1919 it had decreased to $8,483 million. These figures take no cognizance, however, of the corporate securities not listed by the *Journal of Commerce*. That these are considerable in volume becomes clear when we compare the *Journal of Commerce* figures with the actual increase in capital obligations outstanding for all corporations. The total capital stock and bonded and other indebtedness outstanding for all corporations in the United States for the years 1910-13 are available in the reports of the Commissioner of Internal Revenue. During this period

CAPITAL INCREASE SHOWN BY INVESTMENT

(*in millions of dollars*)

Item	1913	1915	1916	1917	1918	1919
Industrial and railroad securities [1]	$1,645	$1,435	$2,186	$1,529	$ 1,345	$3,024
Government securities—foreign	.....	1,275	1,381	805	640	500
United States	.....	.....	.....	5,833	11,760	4,500
State and municipal bonds [2]	408	493	496	445	265	750
Gold and securities repurchased from abroad	.....	1,300	2,000	700	.....	291 [3]
Sub-total	$2,053	$4,503	$6,063	$9,312	$14,010	$8,483
Other securities, less deductions for refunding and for discount	1,000	1,000	1,500	1,000	500	2,000
Total	$3,053	$5,503	$7,563	$10,312	$14,510	$10,483

[1] Reported by the *Journal of Commerce* [2] Reported by the *Bond Buyer.* [3] Excess of exports.

the increase for all corporations reported was $17,501,954,000. The *Journal of Commerce* reports the new securities issued in the same period as $7,157,084,000. It is evident that even allowing for the refundings in the *Journal of Commerce* figures and the discounts in the total figures there is a considerable volume of corporate securities of which the available statistics take no cognizance. It seems reasonable to put this at a minimum of one billion dollars per annum for ordinary years, while in a year of great activity like 1916 it no doubt ran as high as one and a half billion and probably reached two billion in 1919. During 1918 it was materially lower. If these estimates are added to the sub-total which shows the published figures, we arrive at a grand total of $3,053 million for 1913; $7,563 million for 1916; $14,510 million for 1918, and $10,483 million for 1919.

While this table no doubt proves that there has been a large increase in the volume of savings in this country since the outbreak of the European War, it cannot be taken as a safe index either of the total volume or of the relative savings of the different years. Only about one-half of the capital accumulations of this country come to the investment market in a normal year. The remain-

der is used directly for plant extension and for purchase of materials and supplies by the corporations, farmers, and business men who have saved it.

When the facts concerning corporate savings which have been set forth in Chapter IV are taken into consideration, it becomes clear that no accurate statement of the volume of savings or comparison of the different years can be made without including corporate surplus. In 1917, 1918, and 1919 a considerable portion of these corporate savings was paid in taxes. The same is true of a portion of the savings of individuals. In order to make a complete statement of the savings, the excess of production over consumption, of these years it is therefore necessary to add corporate surpluses and war taxes paid or reserved. The following table is a more nearly accurate presentation of the savings of the various years than the table of investments previously given:

1913	$ 4.5	billion
1915	8.0	"
1916	12.5	"
1917	18.0	"
1918	21.5	"
1919	15.0	"

These figures are a pretty accurate index of the capital accumulation from these sources dur-

ing 1915 and 1916. For the years 1917 to 1919 they overstate the matter. After the United States entered the war considerable portions of corporate surplus were invested in government securities. Since this table includes both these items, there is some double counting. We must also take account of the fact that corporate savings are here expressed in terms of money, and in times of rising prices and increased inventories the surplus does not represent a commensurate excess of physical production over consumption.

Furthermore, there was a very considerable purchasing of securities with bank loans. These must be deducted from the evidence of capital investment above in arriving at the savings of the people. The total of such loans on June 30, 1919, together with the investments of the banks themselves in war obligations and war paper, amounted to five billion dollars for the members of the Federal Reserve system. These items for all banks in the United States were, therefore, not far from six and a half billion. The three items may amount to an average of four billion dollars for the years 1917 to 1919. If we deduct four billion dollars from the figures for each of these years, the remaining totals will be as follows:

1913	$ 4.5 billion
1915	8.0 "
1916	12.5 "
1917	14.0 "
1918	17.5 "
1919	11.0 "

This table includes nothing for the reinvested savings of enterprises not under the corporate form of organization. Most mining and manufacturing is carried on by corporations, but the great mass of mercantile and professional activity is still under the private or co-partnership form of organization. The savings of these establishments are large and no doubt increase in somewhat the same ratio as do those of corporations.

The other important omission from the table is the savings of farmers. These increased enormously in 1917 and 1918. In the former year only a small part of these was brought to the investment market by the farmers themselves. Agricultural savings were invested, as they normally are, in the extension and improvement of farm machinery and farm buildings and in the increase of live stock; or in the payment of indebtedness such as mortgages, bank loans, and notes to manufacturers of farm machinery.

The farmer's capital accumulation depends more largely upon his product than upon any other single factor. The expenditures of his fam-

ily are rather constant, and increases in the value of his product constitute in large part a savings fund. The increased value of farm products in the United States during the war as shown on page 27 made it easy for the farmers to save without any additional abstinence.

Previous to the war farm savings as shown by the increase in agricultural wealth were at the rate of $1.2 billion per annum. The best estimate I have been able to make is that these savings rose to over four billion in 1917, while in 1918 they exceeded five billion, and in 1919 amounted to nearly that sum. During this period farmers were paying off their mortgages and other indebtedness at a rapid rate. A large volume of these real estate mortgages had been held by life insurance companies, which brought the funds to the general investment market when the farmer extinguished his indebtedness. A portion of the farmer's savings, therefore, came upon the market in 1915, 1916, and 1917. This movement of funds was in part responsible for the abundant volume of capital available in the investment centers for the repurchase of American securities from abroad and for the absorption of government issues. Insofar as the farmers' savings found their way to the investment market they

have already been included in our estimate of savings. But the greater portion of these savings went into farm improvements and must therefore be added to the figures of savings already given.

When agricultural savings reinvested in farms are taken into consideration, and when due allowance is made for the reinvested surplus of individuals and partnerships, the capital accumulation for the years 1913 to 1919 may be conservatively put as follows:

1913	$ 6.5 billion
1915	9.0 "
1916	14.5 "
1917	18.0 "
1918	22.0 "
1919	15.0 "

It seems pretty clear that this increase in the volume of capital accumulation was the dominant factor in keeping the interest rate low during 1915 and 1916. Our feats of war finance, too, were made possible by this same fact of an enormous increase of production over consumption. During the summer and autumn of 1917 economists and financiers were alarmed at the sums named by government officials as necessary to carry on the war. Fifteen billion dollars seemed to them an impossible figure, in view of the fact that only goods and services were of any avail in prose-

cuting the war. Two or three billion dollars had been commonly supposed by authorities to represent the normal savings of the United States. But the war was financed with only a slight decline in the well-being of the upper classes and with no decline in that of the great mass of laborers. It was accomplished by increasing our production and by allowing the proceeds of that production to go as profits to the corporations and individuals who saved it or paid it as taxes.

With such an increase in the supply of capital, the rate of interest remained low during 1915 and 1916, despite the enormous increase in demand from Europe for prosecuting the war. After America entered the war the large demands of the government for funds outran the supply at the old price, and interest rates began to rise. After the signing of the armistice profits fell and wages absorbed a larger portion of the national output. As a consequence the supply of capital decreased, while the demand for funds from Europe, from our own government, and from business enterprise continued at a high level. The result has been a sharp rise in interest rates, until today they stand at a point which we have witnessed but once or twice since the Civil War. They will continue at this level until

some force operates to reduce the demand for capital.

Theoretically a lower rate might be produced by an increase in supply. This could be brought about either by an increase in production or by a decrease in consumption. At present there is no great prospect of either. The only thing that is likely to reduce the rate of interest is a depression of greater or less magnitude which will reduce profits and the demand for plant extension. When that time comes we will have a lower rate of interest, despite the fact that capital accumulation will be reduced.

In discussing the rate of interest we have used the term as though there were a single rate which prevailed throughout the whole money market. What we actually have is a number of different capital markets, such as the call loan market, the commercial paper market, the market for short-time notes running from one to five years, the market for long-time bonds, the farm mortgage loan market. The conditions which govern the supply of capital, as well as those which govern the demand, are different on these various markets. Each of these has its own rate of interest. These rates are often widely different, and for limited periods at least the course of interest

movements on one market may be in a different direction from those on others.

Thus far we have proceeded with the discussion quite independently of the banking situation. We have treated capital as if it consisted entirely of produced goods, or capital in the economic sense. The term "supply of capital," as it has been commonly used by economists in discussing the long-time rate of interest, depends upon the excess of our production over our consumption. This constitutes our national flow of savings and is the principal factor which determines the abundance or scarcity of capital offered for investment on the market for short-time notes and long-time bonds. On the call loan market and on the market for bank loans generally the supply of loanable funds is governed by banking conditions rather than by savings. The abundance of bank reserves and the legal or customary ratio of loans to reserves will determine the scarcity or abundance of loanable funds offered. Bank credit is capital to the borrower in quite as real a sense as are savings. The rate of interest is the price which the use of capital commands on the money market, and the supply of funds offered upon that market consists in part of actual savings and in part of bank credit.

The supply of such funds increased from about fifteen billion dollars at the outbreak of the war to twenty-five billion dollars in 1917, and to thirty-five billion in 1920. The forces which lay behind the increase of capital on this market were the change in our banking system ushered in by the establishment of the Federal Reserve system and the importation of more than a billion dollars of gold from Europe. A portion of the supply came from real savings of the people deposited with the banks as time deposits. Even demand deposits are in some measure the result of savings.

While the markets on which bank credit constitutes the chief source of supply and those in which capital comes from unconsumed product are in large measure independent, they do nevertheless influence each other. Bank loans at low rates of interest enable people who expect to have investment funds in the near future to purchase stocks, bonds, and notes in the present, carry them with cheap funds secured from the bank until actual savings made out of income enable the purchaser to pay for his securities with those savings. The extent of this interdependence has never yet been determined with any degree of accuracy. It is one of the things which still needs

to be done in order to enable us to forecast movements in the interest rate. During 1915 and 1916 the easy rates which prevailed for paper running from 60 days to six months probably exercised considerable influence in keeping the rate for one to five-year notes low. It exercised a less important influence upon the price of bonds. Even the call rate exercised an influence on both of these. On the market for preferred and common stock, which are simply devices for securing new capital, the call rate is one of the determining factors.

One of the by-products of the war was an unprecedented increase in the supply of capital both for short-term loans and for permanent investment. The reasons for this increase are to be found, not in any determination of our people to exercise in higher degree the virtue of abstinence, but rather in the incidence of the institution of war upon our industrial institutions and processes. The increase in capital was largely unconscious; it was costless also in the sense that it involved no lowering of the standard of living such as the term abstinence connotes.

Several important generalizations concerning the factors which determine capital accumulation can be drawn from our experience during the last

five years. The volume of capital accumulation is affected first and foremost by the volume of productive output. Every increase in production leads quite directly to an increase in capital accumulation. Conversely every fall in productive output will reduce it. Second, other things being equal, capital accumulation is likely to be largest when the share which goes to profits is large. The organization of our industry under the corporate form and the principles of financial management which dominate the corporate institution inevitably work to that end.

Afer this experience it is clear that if we are to explain the movements in interest rates we must study, not the undervaluation of future goods, or the pain of abstinence, but the business cycle with its fluctuations of production and profits. If we are trying to determine whether interest will always exist, the former method of attack may be of some value; but that problem is not one of immediate concern. The problem of the extent and direction of probable fluctuations and of their causes is omnipresent in modern industrial society.

On the money market the demand for capital funds is determined primarily by the prospect of profit. Entrepreneurs find that they can nor-

mally sell product at a price which exceeds what they are compelled to pay for plant, materials, and labor. The prosecution of their enterprises requires capital, and they contract for the use of that capital with other people who do not care to become entrepreneurs. Money markets have developed upon which the price paid for this use is determined. The entrepreneur contracts away upon these markets rights to the profits which he expects to make, supplemented by rights against his property in case the periodic payments are not met. In this manner he "trades on a thinner equity," as the phrase goes, taking the larger risk involved and enjoying for himself a high rate of profit upon his own capital if his venture is successful.

Its supply, likewise, is determined in large measure by current profits; and the whole explanation of variations in the rate of interest prevailing in the money market must run primarily in terms of the entrepreneur's profit. There seems to be little warrant for the contention that profits tend to be reduced to an equality with the rate of interest in a highly dynamic society such as ours. The old explanation ran from abstinence and the abundance of capital to low interest rates and thence through the process of

competitive entrepreneur activity to low profits. Our explanation must run in terms of the business cycle, through variations in price and production to profits, thence to the supply of capital and the demand for it, and finally to the rate of interest. To trace this train of causation is without doubt more difficult, but it is also more valuable and possesses the incidental advantage of closer correspondence with the facts.

Almost twenty years ago now Cassel wrote in his "Nature and Necessity of Interest": "But much work remains to be done before we get a real knowledge of the manner in which the total amount of waiting depends on the rate of interest. As to such knowledge we cannot pride ourselves on being much in advance of the English authors of the seventeenth century, such as Sir Josiah Child and Sir William Petty. Writers who have entered upon the question have mostly confined themselves to remarks on the general underestimation of future goods as compared with present, and the consequent necessity of paying interest in order to call forth a certain quantity of waiting." This paragraph struck me as a sharp challenge when I first read it, and it has tantalized me ever since; that is one of the chief reasons for this chapter.

CHAPTER VI

THE COURSE OF WAGES

We have no comprehensive statistics of wages for all industries comparable to the data on profits reported to the Treasury for tax purposes, nor do we have an index of wage rates or wage payments like the index number for prices of commodities. Perhaps some day we shall subject every employer to the simple duty of reporting monthly to the Bureau of Labor Statistics the number of his employes and the total amount of his payroll for the previous month. When these are cast up we shall have an index of the volume of wages paid and the average earnings per employe.

The outbreak of the war found employment in American industry at a low ebb. The number of employes on the railroads was smaller in 1914 than it had been in any year since 1909. In the manufacturing establishments of Massachusetts, the number of employes was slightly lower in 1914 than in 1913 or in 1912. The United

States Steel Corporation had only 179,353 employes in 1914 as against 228,906 in 1913. The immediate effect of the war was to depress employment still further. During the latter half of 1914 and the earlier part of 1915 the country found itself in a state of depression which affected the volume of wage payments much as it affected profits.

The stimulus of the demand for American goods at high prices which came from the European nations who were anxious to secure materials at any price had a twofold effect upon wages. It increased employment and thus brought about a marked increase in wage payments without any increase in the wage rates per hour or day. After a year the wage rate, too, was affected. These two causes produced a marked increase in the money wages received by employes.

We have fairly satisfactory figures on wages for some industries. Railroad wages show an increase of 77 per cent., having risen from $810 per employe in 1914 to $1,436 in 1919. In 1920 they will amount to more than $1,700 per employe. How this has affected the wages bill of individual railroads is shown by the annual report of the Pere Marquette Railroad covering the year 1919. Its outlay for labor in 1914 was $8,092,297; in 1918 it

was 204 per cent. of that amount, or $16,531,391. During the same period the volume of traffic had increased by 28 per cent.; the increase in the labor expense per unit of traffic was 76 per cent. This is true in spite of the fact that the number of revenue tons per train mile had grown from 465 to 605.

For manufacturing industries the Census of Manufacturers, taken once in five years, furnishes a comprehensive compilation of wages. The last one was taken in 1914; another is now in progress covering the year 1919, but its results are not yet available. Massachusetts and Pennsylvania publish annually figures showing the number of employes and the total wages paid in industrial establishments; in 1914 the total amount paid in wages in these two states was $869,262,517, the number of employes 1,531,176, and the average wages per worker $568. By 1918, the latest year for which published figures are available, the wages paid had increased to $2,889,184,773, the number of employes to 2,536,003 and the average wage to $1,139. Wage rates had risen in 1919 by at least 15 per cent., so that the average wages for the year 1919 will probably exceed $1,300 per annum, or more than twice the average wages of 1914.

The Bureau of Labor Statistics of the United States Department of Labor publishes payrolls and number of employes for a large number of basic industries. According to these compilations the average weekly wage in April, 1920, amounted to $35.80, compared with $12.75 in April, 1915, an increase of 180 per cent. Eliminating from the group the figures for iron and steel, which are large, the 1920 weekly average amounts to $35.36, as against $11.60 in April, 1920, showing an increase of 205 per cent.

The Bureau of Statistics of the New York State Industrial Commission also compiles figures showing the number of employes and average weekly earnings for representative New York State factories employing altogether about 600,000 workers. The payrolls include both office labor and shop labor. The average weekly earnings, using those of June, 1914, as a base, are shown by their compilation as follows:

Date	Average Weekly Wage	Per cent.
June, 1914	$12.70	100
6 mos. 1914	12.48	98
Year 1915	12.85	101
" 1916	14.43	114
" 1917	16.37	129
" 1918	20.35	160
" 1919	23.50	185
Jan. 1920	26.52	209
Feb. 1920	26.47	208

Because of the growth in number of employes in later years, the increase in the payroll in these three states has been more rapid than the increase in the hourly and daily rate of earnings. In February, 1920, the total payroll in New York was 256 per cent. of that of June, 1914. In Massachusetts and Pennsylvania it had increased more than threefold even in 1918. By 1920 the increase was still greater.

Some data is available for specific industries and specific cities. The average wage per man in the U. S. Steel Corporation was $905 in 1914, $1,042 in 1916, and $1,902 in 1919. The number of employes in the meantime had increased from 179,353 in 1914 to 252,106 in 1919 and the payroll from $162,907,000 to $479,548,040. In the automobile industry wages and salaries have risen from $955 in 1914 to $1,250 in 1919. The high rate for 1914 is due largely to the unusual wages paid in the Ford plant.

According to the statement of the Chamber of Commerce of Akron, Ohio, the average wages in the rubber industry of that city have more than doubled since 1915, while the payrolls have multiplied by five. The number of employes and the payroll have increased as follows:

RUBBER INDUSTRY OF AKRON

Year	Payroll	Number of Employes	Average Wage
1915	$ 19,154,887	30,511	$ 628
1916	32,568,465	42,885	759
1917	56,860,640	51,445	1,105
1918	60,591,838	50,927	1,173
1919	101,178,591	73,282	1,381

The rise in wages which began in so many industries during the war continued during 1919 and is still under way in the spring of 1920. The Bureau of Labor Statistics compiles the payrolls for nearly 700 identical establishments from month to month. These establishments had 672,000 employes in March, 1920, as against 571,000 for the corresponding month of 1919. The average weekly wage in March, 1920, was $31.15 as against $25.20 in the previous year, an increase of over 20 per cent., while the total payrolls were 45 per cent. greater. It is clear that the average wages per employe in the industrial establishments of the country today stand at fully 210 per cent. of those of 1913.

The wage figures which have been presented are total payrolls or total earnings per employe per week or year rather than wage rates. It has not been considered necessary to present a confusing mass of comparative rates of pay in the prewar period and at present. The total amount

that the laborer earns within the year is a more significant figure than is the rate of wages per hour or per day. His well-being depends upon his yearly earnings; these are a function of the rate, the volume of employment, and overtime. Even more important for some purposes than yearly earnings per employe is the amount of the payroll. The employer's payroll is a resultant of rates of pay, completeness of employment, and number of workers. From the standpoint of social well-being, the most important unit is the family; and family income depends upon the number of members of the family who are receiving wages as well as upon annual earnings per worker.

The impression which one gets from reviewing the course of money wages is that it is similar to the course of profits. Wages show no such increase in 1915, 1916 and 1917 as do profits, but they continue to rise in 1918, 1919, and 1920, a period during which profits were falling.

The fact that wage payments are now more than twice as high as formerly does not necessarily mean that the workingman is "profiteering," or even that he is twice as well off as formerly. Up to this time we have been discussing

money wages; but the significant thing to the workingman is real wages, the things which money wages will buy. These may not have increased at all, for money wages do not become real wages until they have been taken to the market and exchanged at a price for the goods which the laborer wants. Price is the denominator by which wages are reduced to terms of goods. The important question is whether the new money wages enable the laborer to maintain and improve his former standard of living, or whether he has smaller purchasing power now than in pre-war years.

To answer this question we need an index number which shows the cost of living in the same way in which the best wholesale index numbers now available show the course of wholesale prices. Unfortunately we have as yet no cost of living index as comprehensive as this. But the studies which have been made by the Bureau of Labor Statistics and by the National Industrial Conference Board indicate that living costs have not yet doubled. It seems pretty clear, then, that the real wages of labor have risen and are higher today than they were in 1914. This is true even if we take as our test of the course of wages the growth in yearly earnings per employe. If we

take instead family earnings the growth in wages exceeds the rise in prices by a considerable margin.

We have called attention to the importance of distinguishing between wage rates per hour and the total earnings of the laborer, when discussing real wages. In discussing the relation of the increase in wages to cost of production and to price we need still another unit of comparison. The significant figure for cost of production is the wage outlay per unit of output, the total wage payment divided by the number of units produced. Here again statistics are lacking which give us exact comparisons of the output per laborer now as against that of pre-war days. There seems but little doubt that it is smaller, despite the large additions of labor-saving devices which have been made to capital equipment. The total output of the nation has not increased, in spite of the large number of employes added since the armistice. Let us hope that some day we shall have complete statistics of production month by month. Upon these figures we will base an index number which will show us the fluctuation in productive output. This index, combined with the index of wages, would give us the money cost of the labor element in

production and its variation per unit from time to time.

There seems to be a general opinion among employers and managers that the efficiency of labor today is as low as 60 per cent. of its 1914 level. Now an average wage payment of 210 per cent. for an efficiency of 60 per cent. means a unit cost for labor of 350 per cent., as against 100 in 1914. If the efficiency of labor is as high as 70 per cent., then the labor cost per unit of output is 300 per cent. of what it was then. That such an increase in cost per unit of output must exercise a powerful effect upon price is apparent. Not only is the cost of the labor element in production increased, but the overhead costs are also greater as the time consumed in production is longer.

This fall in output per laborer has proceeded at an unusual rate since the early summer of 1919. Coupled with the increase in money wages there seems little doubt that there has been since the armistice a general increase in the labor cost per unit of at least one-third and possibly one-half.

Actual studies in the labor cost of performing standard jobs on certain public utilities show the following labor costs for the period 1915-1919:

1915	$ 31.67
1916	37.07
1917	45.68
1918	70.72
1919	110.26

The increase in wage rates for these standard jobs between 1915 and 1919 had been 75 per cent., while the increase in total cost had been 248 per cent.; the efficiency in 1919 had decreased almost exactly 50 per cent.

In industries like building operations and other construction work, the increase in labor cost per unit has amounted to even more than one-half, and has proceeded to the point where the increased costs have seriously checked building operations. At the end of any long period of active demand for labor this sort of deterioration in the quality of labor is a common phenomenon. We have never had in this country such a period of prosperity as that which culminated in the half-decade 1915-1920. In addition our supply of immigrant labor has been almost entirely cut off. The two things together have brought us to the point where the money cost of the labor element in production has outrun the rise in the general system of prices.

There are so many different kinds of labor, so many different methods of wage payment, and so many different rates of pay, that the task of

obtaining a general view of the course of wages is considered by experts to be one of the most difficult and complicated scientific undertakings in the whole field of economics. Changes in rates of interest, in rates of profit, and even in prices, would be easier to trace than changes in wages, even if the data were equally accessible for all of them. Yet the information itself, so far as wages are concerned, is at present much less accessible, at least in any comprehensive form. Consequently all general statements regarding wages, of which many are always appearing in print and on the platform, should be accepted with extreme caution, and checked against one another and against all the relevant facts. The significance of some of the statements made in this chapter will be more fully appreciated by comparison with statements about wages in Chapter VII, on the Division of the Product; about prices, in Chapters VIII and IX; and about the possibility of raising real wages discussed in Chapter XIV.

CHAPTER VII

THE DIVISION OF THE PRODUCT

WHAT do these figures for growth of profits and wages signify as regards the division of the things produced among those who have shared in the effort of bringing them forth? It is hardly possible to answer this question for all the industries of the nation, but that is not necessary for the purpose of our main problem. What we wish to know, after all, is whether those who labor have fallen behind in the industrial procession as a result of the events of war; and whether those who own and manage our industrial enterprises have gained an unusual advantage from the occurrences of the last five years.

The modern industrial conflict between labor and capital is found where aggregations of plant, tools, and machinery with which thousands must work if they are to produce at all are under concentrated control. The controversy over wages centers largely in mining, manufacturing, railroads, and public utilities. These are the large-scale industries conducted under the corporate

form of organization. A study of the distribution of the product of these industries into the various shares will answer the most important questions that arise in this connection. Fortunately, these are the very industries for which the statistical data needed are most nearly adequate.

The proceeds of industry are divided between labor, the government, and those who have contributed capital to the enterprise in return for stocks, bonds, and notes. The laborer receives wages and with them purchases a share of the product. The government collects its share in taxes. Those who have contributed capital in return for bonds and notes receive interest. What remains after these payments constitutes the profits of the concern available for dividend payments and corporate surplus. The total fund that is divided among these various parties during a given period is the amount received by the corporation for its output of goods or services less what it has to pay for the materials which it purchases from others and consumes in bringing forth the product. This excess of the value of the output over that of the materials consumed is the value added by the industrial establishment in question.

Depreciation of plant and depletion of resources also represent materials consumed. The distinction between these items and the cost of materials currently purchased is that the machines whose wearing out constitutes depreciation were purchased in some previous time and charged to capital, but they are none the less used up in the productive operations of the establishments. Therefore depreciation and depletion should be excluded from the value added; they represent merely the passing over of value from the durable plant and equipment into the product.

To ascertain the total of this value added is the first step in a discussion of the division of the proceeds of industry. This figure must not be confused with gross income or gross sales, or with profits. The item of gross sales includes all the money received by the corporation for its products or services. The profits are the amount that remains after paying out of gross sales and other income the cost of raw materials and finished goods purchased, the cost of all labor, expenses for repairs, rents, taxes,—to state, local, and federal governments,—interest on bonds and other loans, and in addition making an adequate allowance for depreciation and depletion. The successive deductions by which the amount of

profits is obtained are illustrated by the following figures for all manufacturing corporations for 1917 as shown in the "Statistics of Income," 1917:

Gross sales	$41,116,373,110	
Other Income	1,084,262,373	
Total Gross Income		$42,200,635,483
Labor, material and rents	34,625,627,089	
Depreciation and depletion	724,428,231	
Salaries of officers	555,921,066	
Interest paid	402,834,842	
Taxes, state, local and federal	1,660,051,983	
Total expenses and deductions		37,968,863,211
Profits after taxes		$ 4,231,772,272

A large part of the gross sales of these corporations is obviously not the product of the establishment which makes the final sale, but constitutes merely a re-sale of materials which it has bought from other establishments and incorporated in new product or used up in rendering services like those furnished by the railroads. A thing is not produced anew every time it is resold. The final sale of the product conveys to the buyer the result of all productive acts which have been performed by those who have taken part in the various stages from raw material to finished article. It is not proper, therefore, to take the ratio of wages to the total value of out-

put as the measure of the laborer's share in the proceeds. The statement, for instance, that "the gross income of all corporations in 1917 was $49 billion larger than in 1916, an amount equal to $4,000 per family of laborers," tells us nothing that is significant concerning the division of the nation's product.

Either of two methods might be used to ascertain the total value of the output. If we knew the cost of the materials used we could subtract it from the gross sales and arrive at once at the value added by manufacturing establishments, but no such statistics are available for materials purchased. We must proceed therefore by the other method: first calculating the wages of labor separately and then adding the wages bill to the taxes, interest, and profits, to arrive at the value added. The total wages of all manufacturing establishments in 1917 amounted to approximately $7,400 billion. The total value added by all the manufacturing corporations in 1917 was therefore $14,250,580,163.

Accepting this interpretation of the term "value added," we find that the combined product of the manufacturing, mining, railroad, and public utility industries in 1917 was divided as shown in the following table:

Wages and salaries	$11,100,000,000	54.3%
Taxes	2,360,000,000	11.5
Interest	1,180,000,000	5.8
Dividends	3,070,000,000	15.0
Surplus	2,731,000,000	13.4
Total Value Added	$20,441,000,000	100.0%

1917 was the year of highest profits. It was not the year of heaviest taxes, nor had wages felt the full effect of the war-time competition for labor. The prices of products had risen more rapidly than had costs of production. Therefore labor received a smaller percentage of the total value added in that year than in those preceding or following. The division of the product for the years 1913 and 1916 to 1919 as given in the table below shows this clearly:

DISTRIBUTION OF VALUE ADDED BY MINING, MANUFACTURING, RAILROAD AND PUBLIC UTILITY CORPORATIONS

(*In millions of dollars*)

Year	Total Value Added	Wages and Salaries	Taxes	Interest	Dividends	Surplus Less Deficit
1913 ...	$11,260	$ 7,200	$ 430	$1,000	$2,071	$ 559
1916 ...	18,256	10,350	727	1,080	2,603	3,496
1917 ...	20,441	11,100	2,360	1,180	3,070	2,731
1918 ...	23,635	14,400	3,247	1,288	2,763	1,937
1919 ...	23,500	16,500	3,100	1,200	2,600	1,100

The materials for the preparation of this table were drawn from the Treasury "Statistics of Income" for 1916 and 1917, the "Census of Manufacturers" for 1914, and the data presented in the chapters on the Course of Wages and the

Growth of Profits. All the figures for 1917 except those for wages and salaries were derived from the reports of the corporations to the Treasury.

The figures for domestic taxes and for federal taxes, which are shown separately in the Treasury report, have been combined for the purposes of this table. The amount of dividends paid is not separately shown by the Treasury publications. The separation here made is based upon a thorough study of the ratio of net income distributed in dividends and that retained as surplus by each class of corporations. The interest paid by corporations has never been shown by the Treasury except for the year 1917. The amount set forth in the "Statistics of Income" covers only the interest deductions under the income tax law. In many cases this is less than the interest actually paid, but this does not vitiate the total of interest, dividends and surplus, since any increase in the amount of interest deducted would decrease the net income by exactly the same amount. The expenses deducted from gross income in arriving at profits includes the allowance for depreciation.

The amount paid as wages is not shown in the Treasury's analysis of corporate income returns. There is an item entitled "Labor, Wages, Com-

missions, not including cost of manufacture or production," but this omits the great mass of wages paid. They are intermingled with other items under the captions, "Cost of Goods" and "Miscellaneous Expenses." It is necessary, therefore, to derive the wages paid from some other source.

The last dependable wage figures for employes of all manufacturing corporations are those presented in the "Census of Manufacturers" for the year 1914. At that time there were 8,000,554 salaried employes and wage earners, exclusive of proprietors and firm members. Of these 92,671 were salaried officials and 146,411 were managers and superintendents. In addition there were 725,135 clerks and 7,035,337 wage earners. Of the wage earners 5,649,646, or 80.2 per cent., were employed by corporations. It is fair to assume that the same percentage of the clerks and 90 per cent. of the managers and superintendents were employes of the corporations. The number of persons in the employ of manufacturing corporations in 1914 would, therefore, be as follows:

Salaried employes	92,671
Managers and superintendents	131,770
Clerks	580,108
Wage earners	5,649,646
Total employes	6,337,066

The number of employes in 1913 was larger than this. The general decline in industrial activity incident to the European War reduced the number of wage earners in manufacturing industries from 7,242,752 in March, 1914, to 6,640,284 in December of the same year. The "Census of Manufacturers" last preceding that of 1914 was taken in 1909. During the last four months of the year the average number of wage earners for 1909 was 6,615,046 and for 1904, the next preceding census of manufacturers, it was 5,468,-383. The increase in the number of wage earners from 1904 to 1909 was, therefore, 20 per cent. The total number of employes,—wage earners and others,—of manufacturing corporations cannot be placed at less than 7,000,000 for the pre-war year of 1913. During the same year the number of employes of railroads is shown by the Interstate Commerce Commission Reports as 1,815,000. The census figures for street railways and for telegraph, telephone, and electric light and power companies show that there were over 500,000 employes in other public utilities. In view of the number of employes in the mining industries in 1917 there must have been approximately 1,000,000 of these employes in 1913. We have placed the number of employes in these

four industries at 10,300,000 for the year 1913.

Statistics collected by the Department of Labor of the State of New York show that during 1917 the volume of employment in manufacturing industries was 20 per cent. higher than in June, 1914, which month was somewhat above the average for the year. In Massachusetts the average number of employes in 1917 was 15 per cent. greater than in 1913. The number of employes in all manufacturing corporations in 1917 may be safely placed at 8,000,000. During 1917 there were 2,000,000 railroad employes and 830,000 employes of other public utilities (telephone, electric railway, light, power, and gas companies). According to the statistics of the Bureau of Mines, 1,156,645 people were employed in the mining industries of the United States, thus making a total of 12,000,000 for mining, manufacturing, railroad, and public utility corporations in 1917. The number employed in 1918 and 1919 was practically the same, while in 1916 it was about 500,000 less.

The next step in the computation of the amount paid in wages was to make an estimate of the average wages paid in the industries here under consideration. The annual wages in 1914 of employes of manufacturing corporations were $685

per employe. The average wages of manufacturing and railroad employes combined were $700 per annum. This figure has been taken as the average wage per employe in 1913 also. The total wages in 1913 were, therefore, $7,200 million. The available information concerning the increase in wage rates and employment from 1913 to 1917 shows an increase of slightly over 30 per cent. in the yearly earnings per employe. The average wage in 1917 was, therefore, not less than $925 per annum, and the total wages paid the twelve million employes amounted to $11,100 million.

In arriving at the figures shown in the table above it was necessary to make use of estimates for the years 1918 and 1919 and for some of the items in the years preceding 1917. No figures are shown for 1914 and 1915 because the earnings are not available by classes of industry for those years. The deficits of corporations showing no net income are available for 1916 and 1917 only; they are estimated for the other years. For 1918 and 1919 the net income was estimated from their returns to the Treasury and their reports. Both the estimates of net income and of deficit are no doubt correct within a very small margin of error.

The interest deductions for 1917 are those reported to the Commissioner of Internal Revenue. By comparing the interest paid in that year by railroads and by more than 250 industrial concerns we have arrived at the conclusion that interest payments had increased by 10 per cent. between 1913 and 1917. The other years have been estimated according to the percentage derived from the sampling of railroads and industrials.

Taxes paid to the federal government are actual for every year except 1918 and 1919. In those years they were based upon the estimates of the Ways and Means Committee.

State and local taxes for 1917 only are shown in the Treasury Reports. Railroad taxes are given each year in the Reports of the Interstate Commerce Commission. The "Census of Manufacturers" for 1909 published the figures for state and local taxes paid by manufacturers. In 1914 they were not published separately, but were combined with internal revenue taxes. By deducting the internal revenue taxes collected in that year, we can derive almost exactly the state and local taxes. The figures for the other years have been filled in to conform to the general trend of taxation for state and local governments as shown by the experience of a number of states whose tax

figures are readily available and which have a diversified industrial development.

If the total value added in each year is taken as 100 per cent., then the part which goes to each of the various shares in distribution is as shown in the table following:

DISTRIBUTION OF VALUE ADDED BY MINING, MANUFACTURING, RAILROAD AND PUBLIC UTILITY CORPORATIONS

1913–1918

(*In percentages*)

Year	Total Value Added	Wages	Taxes	Interest	Dividends	Surplus Less Deficit
1913 ...	100.0%	63.9%	3.8%	8.9%	18.5%	4.9%
1916 ...	100.0	56.6	4.0	6.0	14.3	19.1
1917 ...	100.0	54.3	11.5	3.8	15.0	13.4
1918 ...	100.0	61.0	13.7	5.4	11.7	8.2
1919 ...	100.0	70.2	9.0	5.0	11.1	4.7

These figures, without doubt, show pretty accurately the division of the product of these industries and the tendency of the respective shares of labor, capital, and the state to increase or decrease.

The assertion so frequently made nowadays that only 20 or 25 per cent. of the nation's output goes to the laborer as wages has clearly no foundation in fact. It is true that in 1917 the wages of labor were only 20 per cent. of the selling price of the product in the field of manufac-

tures, while for manufactures, mining, railroads, and public utilities combined they were less than 25 per cent. of the gross income. But this is not the significant comparison. The total gross income was over $53 billion. The amount available for division between labor, capital, and the state was $20 billion. Of that amount the laborer received $11.1 billion, or almost 55 per cent., and the state received more than 11 per cent. In 1913 labor received a larger percentage, but the part which the state took was smaller, so that the portion remaining for capital was the same as in 1917. By 1919 labor and the state had increased their share in the product of these industries beyond any point previously reached. It is true that profits measured in terms of dollars were still larger than in 1913, but they were fifty-cent dollars. Obviously four billion fifty-cent dollars are less than three billion one hundred-cent dollars. Yet such is the strength of our institutional belief in the unchanging significance of the monetary unit that it dominates our whole habit of thought, and leads the great majority to think of profits as enormous just because the money expression thereof runs into large figures. The confusion is increased by the fact that in computing the rate of profits earned on the invested capital we take the

latter at cost. This runs, for the most part, in terms of pre-war prices. When this invested capital is divided into profits stated in fifty-cent dollars the resulting percentage is naturally large. One of the chief virtues of the method employed in this chapter is that it cuts through this whole mass of confusion and arrives directly at a statement of the shares which each group receives out of the nation's product.

In 1916 and 1917 the laborer's share, stated as a percentage, was reduced materially. This does not mean that his money wages decreased, for they were larger than previously. But the wages of labor rose less rapidly than the prices of products. He was receiving a smaller share in a larger total and so may have been receiving as much money as before. Thus the Census of Shipbuilding for 1916 and 1914 (issued in 1919) shows average wages of $835 in 1916 as against $730 in 1914. But the percentage of salaries and wages to value added declined from 75 per cent. in 1914 to 63 per cent. in 1916. During the same period the value added increased from $50 million to $96.5 million. This fall in the laborer's share meant an enormous increase in the amount which remained as profit. For in that year taxes had risen but little, while interest payments, being

fixed by previous contracts, remained pretty nearly at the old level. Where only five per cent. of the total proceeds had been retained as surplus in 1913, 19 per cent. was devoted to this purpose in 1916. Dividends rose by one-third, thus keeping pace with the changing price level despite the fact that they constituted a smaller share of the output.

In 1917 the distribution was much the same, except that government now increased its share. It collected in taxes three times as much as in 1916 and more than five times as much as in 1913. Dividends rose until they stood at 50 per cent. above the pre-war level, and surplus was still materially larger than in any previous year except 1916. These were the boom years for profits.

Labor was not yet far enough from the period of unemployment which followed the outbreak of the war and from the flood of immigration which had been going on for a full decade to reap the advantage of the active demand for workers which had grown out of war demand and war profits. In the ten years ended June 30, 1914, almost exactly ten million immigrants arrived on our shores. The outbreak of the war stopped this source of supply of labor.

By 1918 the hand of labor was further strength-

ened by the withdrawal of several million men from industry for the army and the navy. Profits still continued high, at least before deducting excess profits taxes. Since these had to be paid only by those whose earnings were well in excess of what is popularly considered normal, it is obvious that the competition for labor was certain to be stimulated. This situation resulted in such an increase in money wages that labor's share in the total proceeds rose. In that year, also, we set ourselves to taxing corporate profits in earnest. With a rise in wages and taxes, profits fell. Dividends were reduced, but the brunt of the reduction fell upon surplus. Where 19 per cent. had been reinvested in 1916 only 8 per cent. was devoted to that purpose in 1918. In 1919 wages absorbed the largest percentage of product of any year. Taxes were still large; dividends were still further reduced, while surplus fell back to the same share of the product as in 1913. With the continued rise of prices, interest and dividends together absorbed hardly more than half of the share of the product that they had in 1913 and 1914.

It is frequently asserted that these large profits of 1916-1918 were not due to increased production, but were due to the fact that the corpora-

tion took a larger proportion of every dollar spent by the purchaser. In one sense this is true: total output did not increase in the same ratio as profits. But this is not the sense in which the statement is usually intended. The impression which is usually conveyed is that profits were derived from an actual reduction in the amount of the proceeds that went to labor and the other shares. But it is not necessary that output be twice as large in order to have double the profits. If profits constituted 25 per cent. of the proceeds, then an increase of the output by one-fourth would double profits provided only that the amount which goes to the other shares remained the same. Their share of the total product will have fallen from 75 per cent. of the old total of 100 to 60 per cent. of the new one of 125, while profits will have risen from 25 per cent. of the old total to 40 per cent. of the new one. The division of the original amount of product was 25 to profits and 75 to the other shares. The larger new product is divided 50 to profits and 75 to the other shares. The latter receive the same absolute amount as before and get no portion of the added product. All the addition accrues to profits, which are thus doubled. This is exactly what happened in 1916. By that year we had had a

15 per cent. increase in the proceeds of the industries here under consideration. Pretty much all of that increase went to capital. In 1917 the proceeds were still further increased and capital would have kept the added product but for the fact that government exercised its sovereign power of taxation to take a considerable portion thereof.

This change in the division of the product shifted a large share of the national income to the propertied classes in 1916 and 1917 and in turn from the propertied classes to the laborers in 1918 and 1919. The effects which we may expect in the field of capital accumulation and interest rates are important, as we have seen in the chapter dealing with that topic. That it will mean an enormous shift in demand to the field of building and other durable goods suited to raise the laborers' standard of living seems certain.

It seems clear that along with the advantages and privileges which the propertied or "capitalistic" classes, as they are sometimes called, have enjoyed, we have succeeded, during the war at least, in throwing upon them the burden both of supporting the state and of accumulating the necessary capital for industrial expansion.

Statements to the effect that profits constitute a tax on labor are largely misleading. They convey to the public the impression that, were it not for these profits, we could all consume just that much more. But this is fallacious if we are still in a period of industrial expansion, as we were during the war. The things needed to increase our plant and to carry on our military and naval operations could not be consumed by the laborers or by any other class. It is a simple matter to divide the surplus over dividends of these corporations for 1916-1919 by the number of laborers and show that it amounts, on the average, to $200 apiece for the four years. But so much of this surplus as represents merely the higher cost of inventories, materials, and supplies, surely could not feed or clothe anyone; and that part which was devoted to plant expansion likewise was not available for consumption.

This does not, of course, settle the question as to the equity in these reinvested profits. It may well be that if the right of private property in these savings accrued to the laboring classes it would give us both a more stable and a more democratic society than we now have. Such a society would certainly be better balanced, both politically and economically. But the volume of

product consumed by the various classes would not be much different from that which prevails at present.

Practically, the most difficult problem which labor has before it for the next decade is to hold this relative advantage which it has gained. If it does not make shipwreck upon the attempt to hold its advantage by curtailing output, it will have gained rather than lost from the effects which the war has produced upon the division of the product of industry.

CHAPTER VIII

HOW EUROPE RAISED AMERICAN PRICES

Foremost among the causes which have brought about the growth in profits and the rise in wages described in previous chapters stands the rise in the level of prices from 100 in 1913 to 269 in June, 1920. The multiplicity of explanations for this unprecedented depreciation in the value of the gold dollar is an excellent illustration of the prevailing confusion of thought. Those of us who opposed Mr. Bryan in 1896 in the belief that the maintenance of the gold standard would insure a stable price level are baffled by this unprecedented phenomenon. If we had abandoned the gold standard and gone to irredeemable paper, or even to a silver standard, the thing could be explained according to the respectable and time-honored laws of economic theory. But how the price level of a country can multiply by two and one-half while it remains on the gold standard is not easily explained. According to Bradstreet's index number, the prices of 157 com-

modities which could be bought for $591 in 1896 had risen to $2,087 in February, 1920.

The causes given for this increase in prices are numerous and varied. Profiteering, currency inflation, curtailment of production, inefficiency of labor, excess profits taxes, are all assigned as reasons for the declining purchasing power of the dollar. But most of these reasons lose much of their plausibility in the face of a critical examination of the facts. While prices have risen rapidly since 1917, we have seen, in an earlier chapter, that profits have steadily fallen since that year. The currency inflationists have not been able to prove statistically that the increase in bank credit was a cause rather than an effect of price. The increased volume of product would naturally call for a larger amount of bank credit, especially if forces independent of the currency had served to increase the prices at which those products exchange.

Curtailment of production seems a plausible explanation at first, for we have all learned that a decrease in supply produces an increase in price. But it is certain now that production did not fall off, at least in America, during the European war. 1916 saw a material increase in productive output in this country. This was further augmented in

1917 and was pretty well maintained during 1918. Furthermore, the economic law that a decrease in supply tends to increase price holds good only provided other things remain the same. Now these other things which must remain the same if the law is to operate consist of the supply of other commodities and of the general price level. For there is a second law in political economy, commonly known as Say's Law, which states that the demand for goods consists of the goods produced, and that therefore increased supply creates increased demand. As a matter of historical fact high prices actually occur in times of prosperity such as prevailed from 1900 to 1906, when production is large; while low prices prevail in times of depression like 1894-96 when productive output is small. Large supply of all goods and high prices therefore go together, while low prices accompany a small output. The statement that the decline in production has increased prices fails at two points. First, production in America did not decline, but increased; and second, a general state of high productive activity normally coexists with high prices.

It is no doubt true that the inefficiency of labor has been the chief cause of increased prices since April, 1919. But surely no such cause can be

assigned for the rise of prices during 1916 and 1917.

The arguments of those who insist that the excess profits tax is the prime cause of the increase in prices have been so insistent and vociferous that the effect of taxes upon prices will be discussed in a separate chapter. Suffice it to say at this point that prices rose 61 points before the United States entered the war and before any excess profits tax was either imposed or discussed. That there was a further rise of 25 points before the excess profits tax law was enacted, and finally, that in the year 1919, when the amount collected in excess profits taxes was only half that of 1918, the price level rose steadily until it stood 69 points above February, 1919, whereas it had risen only 21 points during the year in which the tax was at its height. Those who believe that this tax raised prices even when it was reduced certainly have remarkable faith in its powers of levitation.

A recapitulation of the course of wholesale prices since 1913 as shown by the Bureau of Labor Index number will serve as a basis for a discussion of the causes which underlie the rise.

The following table shows the average prices for the years since 1913:

Year	Index number
1913	100
1914	100
1915	101
1916	124
1917	176
1918	196
1919	212

This table does not, however, give an adequate picture of the course or the pivotal points at which changes occurred. The average for 1916 does not show the progressive rise of prices from 110 in January, 1916, to 146 in December of that year. Certain selected months will help to show the changes within the various years. Thus March, 1917, was the month preceding the entrance of the United States into the war, while July is the highest point reached in that year. November, 1918, was the month in which the Armistice was signed. February, 1919, marks the low point since the cessation of hostilities.

Month	Index number
1914, September	104
1915, December	106
1916, December	146
1917, March	161
July	186
October	181
1918, June	193
November	206
1919, February	197
December	238
1920, June	269

These tables show that the first material advance in prices occurred at the end of 1915. From that

time on the rise was rapid. By March, 1917, the month before we entered the war, prices already showed an advance of 61 per cent. This period marks the first phase of the upward movement.

After the sharp rise from 161 to 186 between March and July, 1917, the general level remained fairly stable until the signing of the Armistice in November, 1918, the rise during these fifteen months being only 20 points. This is the second phase of the price movement. During this period government control of prices was in active operation and seems to have exercised an important influence.

The third phase of the movement is that which has occurred since the signing of the Armistice. After a drop of ten points in January and February, 1919, prices started upward once more in March, and rose over 50 points within a year.

The forces which influenced prices in each of these three periods are quite different. Neither inflation of the currency, profiteering, nor any other single cause can be invoked to explain the situation. During the first period it was Europe which raised American prices. In the second period they were powerfully influenced by government control. Since the spring of 1919 the grow-

ing inefficiency of labor has been the prime cause of rising prices.

No adequate explanation of the rise during the period which intervened between the outbreak of the European war and America's entrance into the conflict is possible unless we take as a point of departure the complete revaluation of the ends of life which the declaration of war produced among the nations of Europe. Things which before were held in high esteem were now sacrificed ruthlessly and without hesitation to the maintenance of the national honor. Conservatism in matters of finance, the enjoyment of leisure and ostentatious expenditure, even the sacredness of life itself, were abandoned without a moment's hesitation. No one asked that the traditional values be maintained; they asked only that the war be won. This attitude of mind expressed itself in an enormous demand for the things needed to prosecute war. The nations bid for them in great quantities without much regard to price. Thus Europe raised our prices, and to understand that rise, we must analyze the European situation.

Before proceeding to this analysis it is well to observe in passing that a new price level, once established, tends to maintain itself through the

very law of costs, even though the original force which raised prices has disappeared. Prices cannot permanently remain below the cost of production. This consists of the sum of the costs of labor and material employed in creating goods. When the prices of the materials used, and wages, the price of labor, have all been increased then the cost of production is on a new level and tends to maintain prices there. This is especially true when the rise is relatively the same in all countries which have international trade relations. When once the increase has run its course from products to production goods and to wages, then prices tend to continue on the new level through the operation of ordinary economic laws. The change of human attitudes produced by war can, therefore, bring about a permanently higher level of prices. After all, prices are only the quantitative expression put upon goods and services for purposes of economic calculation, as in costs and profit. The industrial processes of production, distribution, and consumption can go forward on one price level as well as another.

To return to our analysis of the European situation, let us consider the organization and movement of industrial life as it existed in England in the years previous to the war. England is chosen

in preference to any of the other countries for our purpose because she was the most powerful financial nation in Europe, and the one primarily responsible for the financial management of the war in the matter of purchases abroad.

We can best understand the ordering of industrial life in England by examining the uses to which the national income is put. The value of all goods and services produced annually by the people of the United Kingdom amounted to twelve billion dollars in the years previous to 1914. Of this ten billion was spent by the people upon their living. There were various layers of society, each with a conventional standard recognized in a rough way as proper for that class. The remaining two billion was not currently consumed, but saved. The savings of a nation are the excess of its production over its consumption and according as this excess is large or small the amount of capital available for investment is correspondingly increased or decreased. The two billion dollars of savings were devoted to the extension of the nation's factories and railroads; to the building of better houses, and public improvements; and to investment abroad. England had for decades sent a part of her income to the newer industrial nations who were anxious to secure capital for the

development of their natural resources. In return for this the Englishman received securities which gave him a claim,—a mortgage as it were,—upon the incomes of other nations. Mr. C. K. Hobson, the leading authority on the export of capital, places the British foreign investments at the outbreak of the war at £3,500 million, the equivalent of seventeen billion dollars in our currency.

Both the income which the Englishman invested in new plant extensions at home and that which he sent abroad were designed to insure income for the future to the individual and the nation. With this he expected to maintain that customary standard of living which had become one of the institutions of the nation.

But an assured money income is not enough to guarantee one's purchasing power for the future. The price level must be stable as well. If I provide $5,000 per annum of income for my old age, that being the amount necessary to maintain my customary standard of living, and then find that the price level has doubled, the real purchasing power of my income has been cut in two. To insure a stable price level the Englishman had for more than a century maintained the gold standard. This made the value of the monetary unit dependent upon a certain quantity of gold, a commodity

whose value remained unusually stable over a long period of time. The gold standard was another institution which existed in 1914.

There were others affecting taxation and banking. Individual income can be reduced by taxation. Government expenditures were therefore limited and were not allowed to encroach unduly upon the income of the individual. Since government borrowing resulted ultimately in increased taxation, the increase of government debt in times of peace was not tolerated.

The whole financial organization of the nation, as distinguished from its industrial organization, was dominated by a conservative banking policy which for a century had commanded the admiration of the world. Loans were restricted to ventures which were likely to be profitable under the existing price level.

This, in a general way, was the set of industrial and financial institutions which characterized English society at the outbreak of the European war.

The first economic effect of the war was to turn the whole course of production into the manufacture of things suited to immediate consumption for war purposes, or else for the creation of plant facilities which would serve to produce war mate-

rials. No part of the twelve billion dollars of national income was now devoted to the extension of ordinary plant, to the building of houses, to the prosecution of public work, or to investment abroad. Every ounce of the national productive capacity, save only so much as was needed to sustain the people, was devoted to the creation of goods for immediate destruction. The government secured control of these goods for the most part by offering high prices for war materials and thus drawing labor and materials away from the production of the things which the people would normally have demanded.

A government has powers of demand that far outrun those of any individual or corporation, especially when the credit of that government stands in good repute, as did the government of Great Britain. Modern governments may exercise the sovereign power of taxation. When supported by public opinion, this power may be exercised to a degree that would not be tolerated in times of peace. The object lesson of the United States, setting about in the summer of 1918 to plan with cool deliberation a revenue act which should raise eight billion dollars in a single year, is an illustration of the way in which war enthusiasm operates to place purchasing power at the

command of governments. In addition, a nation with credit so well established as was that of Great Britain may augment its immediate purchasing power enormously by pledging through public borrowings its future revenues to be derived from taxation. England proceeded to use both these fiscal expedients to the limit. Naturally, prices in that country rose quickly. By January, 1915, the London Economist index number already stood at 112 per cent. of 1913, while cereals and meats and miscellaneous commodities like rubber, timber, oils, etc., stood at 136 and 128 respectively. By October, 1915, the general price level stood at 130; cereals and meats stood at 150; minerals at 129. This rise in prices continued until at the end of 1916 the general level stood at 183; cereals and meats stood at 123; and minerals stood at 160 despite the fact that they were heavily subsidized by the British government. At the time the United States entered the war, the British price level stood at 200 as against the American level of 161.

The British government did not limit itself to devoting the productive resources of the nation to war purposes. It went abroad and offered high prices for large quantities of goods. Because of its geographical position and its enormous in-

dustrial development the United States was the principal nation from which England could hope to get the things she needed. Britain was able to pay for these purchases because England and France had in their circulation considerable quantities of gold and owned an immense volume of foreign securities which could be sold to investors in the countries where purchases were made.

During the first few months of the war they held on to their gold and drew over $150,000,000 from this country in addition. Nor could they market their securities here, because our stock exchange was closed.

But beginning with December, 1914, gold began to flow back to this country. Gold being an international medium of exchange, was accepted without hesitation by people in payment for the goods which we were sending Europe at war prices. Between that date and the time when America entered the war the Allies paid for $1,100,000,000 of exports with gold. Our stock exchange was reopened in December, 1914. Beginning early in 1915 enormous volumes of American securities formerly held abroad were sold here. During the next two years no less than two billion dollars were returned and marketed in this country. In addi-

tion two and a half billion of foreign government securities were floated here during 1915 and 1916. All told Europe sent us five billion dollars in gold and securities between the beginning of 1915 and the spring of 1917 in payment for her enormous purchases.

Large profits arose out of the sale of the ever-increasing volume of products which we were turning out for England at such profitable prices. These war-profits furnished the funds with which America purchased European securities. The whole operation was thoroughly lubricated by the expanding bank credit made possible by the large importation of gold from Europe. The loans and investments of the New York Clearing House Banks alone increased from $2,112 million on June 30, 1914, to $3,400 million in June, 1916, an increase of over 60 per cent., under the stimulus of this flow of gold.

It is a well-known principle of banking practice that a banker's ability to make loans depends immediately upon the state of his reserves. When these are abundant, bank credit is plentiful and easy. The Europeans saw to it that our gold reserves remained abundant all through 1915 and 1916. The result was the absorption of foreign securities which we have already noted. The

European gold imports, therefore, served two purposes. First they served as payment for over a billion dollars' worth of goods which we sent them; and second, they served as a basis for an enormous credit structure which either absorbed the securities sent us directly, or at least facilitated their absorption out of actual savings and investment funds. This story of how Europe thimble-rigged our credit situation with gold for a period of two years is a most interesting one. The history of England's management and accomplishments during this period is a monument to her financial wisdom and sagacity.

It must not, however, be inferred that the absorption of European securities was entirely, or even for the most part, out of bank credit. As we have already noted, the volume of savings in the latter part of 1915 and throughout 1916 and 1917 was unprecedented in this country. It was the investment fund created by the excess of our production over our consumption which made possible such an absorption of investment securities here.

But the enormous imports which England secured through the exportation of her gold cost both her and France one of their most time-honored institutions, the gold standard. Their stable

monetary units based upon gold were replaced by a paper standard. England and France are both off the gold standard, definitely and consciously. Where the great mass of money in the pockets of the people of England had been gold, it now became almost exclusively paper notes issued by the government, not redeemable in gold. Such a thing had not been practiced in England for a century.

The complete destruction of the English price system as it stood at the outbreak of the European war, and the substitution of one just twice as high, was a further cost. In addition she increased both her taxes and her national debt at an enormous rate. At the beginning of this period England was an investing nation, which owned seventeen billion dollars of foreign securities. Her credit was unquestioned, her taxes were reasonable, not unduly burdensome, her national debt had been comparatively stationary for a long time. Her monetary system was based upon the gold standard, and she had no problem of government paper money. At the end of three years of war her burden of taxation was enormous, her public debt had been greatly extended, the gold standard had been abandoned, her banking situation had expanded enormously, and her prices had

doubled. But she had gotten the things needed for the prosecution of the war, and had gotten them in considerable measure from the United States. To accomplish this she was obliged to bid up prices here, and this she had done without hesitation.

It remains to trace briefly in this chapter the course of prices in America. The average prices for the year 1915, as shown by the War Industries Board wholesale index number for the United States, stood at 102 per cent. of 1913 prices. Fuel and rubber were lower than they had been before the war, and stood one at 89 and the other at 91. Food was 102, metals 108, chemicals 145. English prices during this same year stood at 128. The commodities which raised the American index number above the average of the pre-war prices were metals and especially chemicals. Among the chemicals the rise occurred principally in two classes of goods: coal tar products and explosives. In England chemicals were over 20 points above even the high prices which prevailed here. The rise in coal tar products was due, both in England and America, to the cutting off of German imports. The even sharper rise of explosives was directly due to war demands for these things on the part of the allies. The increase in metal prices

was likewise due to European war demands. It is clear that the foreign demand was responsible for the rise in the general level in 1915. Explosives had gone from 102 in 1914 to 160 in the early months of 1915. They continued to advance until at the end of 1916 they stood above 200. Food likewise had advanced somewhat, principally in the case of sugar and wheat. The latter is to be ascribed to the increased European demand.

In 1916 the average price of all commodities was 126. Metals were 174 and chemicals 179. Food was below the average at 115. The rise in this group was less than we should have expected. The explanation is that America had an enormous wheat crop in 1915 amounting to 1,025,801,000 bushels, as against an average of 751,000,000 bushels for the four years preceding.

Metals showed the most pronounced increase over the previous year, and this in spite of an enormous increase in metal production. The output of copper rose from about 1,600 million pounds in 1913-15 to 2,311 million pounds in 1916. Pig iron production had been at 31 million tons in 1913, 23 million in 1914, and 29 million in 1915. It rose to 39 million in 1916. Spelter increased from 347 thousand tons in 1913 to 659 thousand

in 1916. In spite of this, metal prices continued their rise under the stimulus of war demands.

The increase in price initiated here by Europe soon set in motion forces which served to accelerate that movement and make it permanent. The first effect of growing demand at high prices was to increase profits. Thus the net income of a group of concerns manufacturing arms and powder grew from an average of $5.3 million during 1911-14 to $57 million in 1915 and to $82 million in 1916. A group of 43 copper companies which had earned $63 million dollars per year had net income of $115 million in 1915 and $257 million in 1916, according to their published reports. Seventeen iron and steel companies whose combined earnings had been $75 million per year made $115 million in 1915 and $470 million in 1916. Nineteen food companies whose earnings had been $41 million per year during the previous four years made $66 millions in 1915 and $106 millions in 1916.

When such profits could be made all the productive resources of America were pressed into service. Our labor and all our plant were utilized to the full. In addition machinery and materials for use in further production were in active demand, and the prices of the things needed to pro-

duce goods which could be sold at these profitable prices drove up the prices of other commodities. Fuel, which had lagged behind the general price level, began to be scarce in October, 1916, and rose from the lowest rank in the scale of commodity prices to over 185 early in 1917. The ultimate effect of Europe's demand did not confine itself, then, to the commodities which she desired; it extended to all the things needed for the manufacture of those products, either directly or in the construction of further plant facilities.

But material goods are not the only thing needed to bring forth product. Labor is one of the primary factors of production. At first the activity in industry manifested itself in a complete employment of labor. For a considerable time the wage payment per laborer increased materially without any increase in the rate per day or per week. All the men in industry had full-time work, and presently over-time work. More people were employed, older men, younger boys and women, until our entire population was pressed into the service of production for high profits. It was the remarkable increase in output, thus brought about, coupled with an increase in the price of product at a time when expenses for plant facilities and labor costs per unit of output

remained nearly stationary, which was responsible for the high profits of 1916. Thereafter began the process of bidding up wages. This came much later than the increase in the price of the products or in the price of production goods.

With the rise of wages the circle was complete. For when wages and the material used in production have increased then the price of the product must remain high through the operation of the very law of cost of production. Price cannot permanently remain below the cost of the labor and material which enter into the product. When any cause, no matter what its origin, has raised these factors, then the price system will tend to go forward upon the new level.

It was not decreased production which raised prices in America during 1915, 1916, and 1917. That production was larger than it had ever been before, much larger. One thing that the war taught us was that this country has ordinarily a large amount of productive capacity in reserve. All that capacity was pressed into service under the stimulus of European demand at high prices and the resulting profits. In explaining this rise in prices we must start with the factors which brought about that increase in demand. The principal cause was the revaluation of ends which oc-

curred among the European nations when they found themselves in a state of war.

Once this effective demand existed, increased production, high profits, competition for materials and for labor, followed. An expansion of bank credit was necessary in order to exchange the increased volume of products at the higher prices. Enormous profits existed, far beyond anything that was necessary to keep men in industry and to stimulate their initiative and enterprise. The government could take these or leave them in the hands of those who had been fortunate enough to benefit by the purely fortuitous and accidental events of war. In 1917 the government decided to take a portion of the increased profits; but only an amount, let us remember, which left profits even after taxes equal to twice the profits of any pre-war year. Labor began to lose in efficiency and amenability to discipline, and thus in time increased the cost of production. But all these things were by-products of the rise in price. The cause must still be sought in the cataclysmic changes which occur in the industrial process when war strikes across the current of national life.

CHAPTER IX

PRICES SINCE THE ARMISTICE

The signing of the armistice was expected to usher in a fall of prices in America. This opinion was all but universal with the business community. "A sharp drop in commodity prices will follow the end of the war," was the assertion made without qualification by a leading financial institution. The coming of war had increased prices; the cessation of war would bring about their fall. What goes up must come down. Such was the naïve point of view taken by the non-professionals. Bankers, economists, and financial writers had arguments which were more elaborate and better articulated. These specialists realized that the very belief of the public that prices would fall was bound to be a powerful factor in setting in motion a chain of causes which would lead to lower prices. Those who bought for re-sale, especially retailers, would refrain from ordering goods to replenish their stocks in the expectation that a little later they might restock at lower prices. From the stock on their shelves they would meet as best they could the immediate demands of

their customers. Such a general curtailment of demand on the part of retail merchants would at once mean a decided stoppage in the outlet of wholesale markets. The manufacturers and jobbers would find themselves under the necessity of reducing prices in order to tempt purchasers, for they must meet their obligations to banks and others if they were to maintain their credit standing. The maintenance of that standing was to them more important than the maintenance of price. Therefore prices must give way.

The very curtailment of demand on the part of retailers was expected to lead indirectly to decreased purchases on the part of the general public. The moment the retailers curtailed their demands, the manufacturers would find the outlet for their goods cut off. This in turn would lead to a curtailment of production and to unemployment. Since the great mass of the buying public consists of the laborers, any decrease in employment would mean a decrease in retail demand and would further strengthen the inclination of the retailer to postpone his buying from the wholesaler.

On the side of supply, there were two sets of forces which were expected to bring commodities upon the market at lower figures. First of all

there was the plant capacity and the labor which had been devoted to war work. The government demand for war material would cease absolutely, it was thought. The people who had been engaged in this field of work would become at once actual or potential competitors to fill the peace-time demand. It also seemed fairly certain that the unemployment caused by the slackening of demand and by the returning soldiers would bring about some decrease in the rate of wages and a pronounced increase in the efficiency of labor. This would lead to a considerable reduction in cost. With the buying public in an attitude of "watchful waiting," with unemployed labor from munitions works, from the disbanding army, and from the factories working on part time, it seemed certain that prices would seek lower levels. In short, we expected a moderate industrial depression, with its accompanying reduction in price levels.

For a time the course of events ran true to this line of analysis. Retailers did curtail their buying immediately. In many lines it was impossible to induce them to buy because of the very uncertainty which prevailed with respect to the course of prices. There was for the moment no standard customary price to which one could appeal to reassure himself. By February, 1919, the Bureau

of Labor index number of wholesale prices stood at 197, as against 206 at the time of the armistice. But the downward movement did not continue. In March it turned up slightly to 201. By May it had regained the level of the previous autumn. In July it jumped from 207 to 219, and the year closed at 238. By April, 1920, there had been a gain of 69 points over the low period after the armistice, the index number standing at 266.

What was the reason for this miscarriage of prophecy? The three most important factors which were at work to bring about an increase rather than a decrease of prices were the state of domestic supplies, coupled with the large foreign demand; the determination to prevent unemployment in this country; and finally the growing inefficiency of labor and industry which developed once it became apparent that we had escaped post-war depression.

It was impossible to foresee that the government of the United States would extend to Europe two billion dollars of credit after the armistice. Many of us had felt that something might be said for that policy, for we believed that the loan would be in one sense costless. The author recalls a conversation just after the armistice in which he remarked to a high financial official,

formerly a banker, that it might be desirable to keep our production going by extending credit to Europe. The answer was that such a course reminded him of Mr. Dooley's observation that if one ran a saloon and sold on credit he could have lots of friends. With the sudden cessation of government demand for war purposes, and with the curtailment of buying, first on the part of retailers because of uncertainty with respect to prices, and afterwards on the part of laborers because of unemployment, we felt that a large amount of our plant and our labor would be idle. A 20 per cent. reduction in the output of mines and manufactures would mean a waste of billions of dollars. If these industries could be kept at work through foreign demand, it was better that we should loan them two billions than that six billions of productive capacity should be wasted and that social unrest should develop in the proverbial devil's workshop always created by idle hands. Our anxieties on this score were needless. Out of the money raised by taxation and government loans we extended credit to European nations which they promptly used to purchase things here. Our own government was curtailing many of its war purchases, but it was making up for them by using its power of taxation to put Europe in a posi-

tion to make peace-time purchases from us. Thus the demand which was lost in the home market was replaced by the demand from foreign markets. As a result prices did not soften as expected.

Unemployment, too, failed to develop according to expectations. First of all the government decided it was better to have labor employed at useless tasks than to have it unemployed. In either case there could be no more than a complete loss of that labor plus the loss of the material used. Much of the material was already specialized to the point where the further loss involved in working it up was negligible. The prevention of unemployment was considered an important enough end to offset the loss in material.

There was a strong feeling, both at Washington and among business men that it was unwise to allow any serious state of unemployment to develop. Banking policy was formulated to the end of furnishing the employer his payroll fund. As a result the demand for consumption goods from the working population continued at a high level. This demand expressed itself primarily in a call for the things sold by the retailers. Soon the meager supplies which these had on their shelves were exhausted. They found it necessary and desirable in the face of this

insistent call for goods to replenish their stocks almost regardless of price. By March trade was active once more, and by May it was booming. It was then that prices regained the highest war-time level. Very shortly thereafter they started upward from that level, despite the fact that we were at the season when the new food supplies tend to lower prices. By summer the fear of unemployment and depression was over. Our labor was fully employed at wages as high as in war time, with demands for further increases on every hand.

Nor was the purchasing power of the great mass of people limited to wages. Early in 1919 the sales of liberty bonds through private channels and upon the New York Stock Exchange reached tremendous proportions. For the full year these sales on the exchange totaled three billion dollars, and for the first four months of 1920 another billion was sold. A large part of the funds derived from this source were devoted to the purposes of ordinary consumption rather than to capital expansion.

The liberal policy with respect to the expansion of bank credit which had been pursued in the earlier part of the year because of the government's financial necessities and the desire to pre-

vent unemployment went on apace throughout the summer and autumn. The state banks of Michigan and Ohio are typical of what was going on in the interior of the country. They had expanded their loans during the year 1919 by over 40 per cent. The twelve largest banks of the city of Detroit expanded their loans by 50 per cent. in the ten months, July, 1919, to April, 1920. This served to support the increase in prices by furnishing the necessary credit medium for making exchanges.

The complete employment of labor had an effect upon labor itself which operated to increase prices still further. The decreased efficiency which followed five years of boom times with no immigration was noted in an earlier chapter. It was there estimated that this decline in discipline resulted in an increase of 50 per cent. in labor costs per unit of output. Any such increase in costs naturally operated to stimulate prices. The entire wages received by the laborers were spent upon the products which they produced. These high wages, the high taxes imposed by government, and the demand for capital expansion kept the market at the point where the output of our industries found ready sale. Under such conditions, the price level has continued to rise.

Will this rise in prices continue indefinitely? If not, when will it cease, and what are the forces which will bring it to a termination?

It seems clear from the experience of the last year that the mere maintenance of the gold standard will not lower prices. Gold has been freely exported since the signing of the armistice but this has not served to check the rise to say nothing of reducing prices. As long as the demand for goods on the part of those who receive wages and profits continues, the rise in prices may keep on provided only the banks are willing to support the new values with the necessary loans. The only force that can bring to a conclusion such a rise in prices as that which we have experienced in the last year is a commercial depression. This may be only slight and temporary; in this case it would do hardly more than check the rise in prices and bring down some of those which have far outrun the general movement. Or it may be drastic and reduce prices considerably.

The point to be emphasized is that there is nothing in the price system itself or in the principles that determine the monetary standard which will work automatically to reduce American prices. A price level once established will tend to maintain itself through the workings of ordinary eco-

nomic laws. The forces which raised prices to a higher level originated entirely outside the price system. The forces which will lower them will likewise be non-monetary ones.

In Europe the situation will probably be different. There the re-establishment of the monetary standards which prevailed before the war will almost certainly lead to a downward adjustment of prices, especially in Germany and France. There will be a movement similar to that which occurred in the United States between 1865 and 1879, when we resumed the gold standard.

But in the United States we are now on the monetary standard which will prevail for a long time to come. The factors which influence our price system must be non-monetary ones. Any change in the technique of the arts or discovery of new sources of supply would operate to reduce costs and so prices. Likewise any development in the industrial process which leads to industrial depression will produce conditions of demand, of unemployment, and of efficiency in output which will bring about a new situation. When these forces have depressed the prices of production goods and the wages of labor, then the system will go forward once more upon a new level.

CHAPTER X

GENERAL PRICES AND PUBLIC UTILITY RATES

The prices which we have been discussing thus far are those which find their way into standard index numbers. Those numbers omit entirely that important set of prices paid for the services rendered by railroads and by public utility companies such as street railways, electric light and power, telephone and telegraph companies.

The Bureau of Labor index number contains a group for Fuel and Lighting, but this consists of items like coal, candles and petroleum and omits entirely electric energy and gas.

Public utility rates are the prices which the public pays for the services rendered by this type of corporation. These prices, like other prices, should be high enough to cover the cost of rendering the service and leave a profit which compares favorably enough with profits in other branches of industry to attract to these companies a continuing supply of capital for extensions and improvements.

Public utility rates should be neither more nor less than this amount. If they are more, they will yield a profit which serves no purpose except to enrich the security holders of the company. If they are less, they lead to a diversion of capital to industries which are more profitable, with the consequence that the service of railroads and other public utilities inevitably deteriorates, to the great disadvantage of the public.

It follows from this analysis that there must, in the public interest, be a necessary interdependence between railroad and public utility rates, the level of prices, of wages, and of the rate of profit in the general field of industry.

Costs of operation are merely the prices which must be paid for labor and materials used in furnishing service. These prices are no different to these companies than to anyone else, for while public regulation fixes the prices which they may charge for their services, it does not limit the prices which they must pay for labor, for materials, or for capital to be used for extensions and refunding operations. They must procure these things upon the general market in competition with other industries.

The course of these prices, together with the

course of taxation, must determine the course of necessary rates. Practically all necessity for rate revision arises out of price changes. If taxes and the prices of labor, material, and capital did not change, then rates which had once been properly fixed would remain satisfactory, except for technical changes which increased or decreased the unit costs of rendering service.

While wholesale prices were rising from 100 in 1913 to an average of 212 for 1919, the rates paid railroads and public utilities for the services which they rendered increased by not more than 30 per cent. There was practically no increase until the first half of 1918. Then railroad rates were increased 30 per cent. Telephone rates increased but very little before the inauguration of government control of the wire lines in August, and thereafter remained almost stationary until well into 1919. Telegraph rates remained at their pre-war level until April 1, 1919, when the Postmaster General increased them 20 per cent. Street railway fares likewise remained low until 1918. During 1919 and now in 1920 further progress has been made in the adjustment of most of these rates. Upon the whole it is safe to say that there was no increase of any significance before 1918, and that the rates effective by the end of 1919 were

not more than 30 per cent. higher than those of the pre-war period.

Such a situation was certain to influence earnings. During 1915 and 1916 the increase in business activity everywhere resulted in an increased demand for the output of these companies, and a growth of gross revenue and of profits. As against one billion dollars of net income in 1913, the highest of any pre-war year, they rose to one and a half billion in 1916 and fell to one billion, three hundred million in 1917. In the year in which profits of industry in general reached their high-water mark, these companies were already losing ground, despite the investment of additional capital. For twenty-four selected public utility corporations the net income since 1913 has been as follows:

NET EARNINGS OF 24 PUBLIC UTILITY CORPORATIONS
1913–1919

Year	Net Income	Dividends	Surplus
1913	$ 91,152,373	$69,445,542	$21,706,831
1914	92,184,608	73,366,005	18,818,603
1915	109,875,718	79,078,699	30,796,749
1916	124,497,517	83,374,136	41,123,381
1917	110,453,890	86,848,229	23,605,661
1918	90,968,565	83,120,925	7,847,640
1919	92,582,364	84,969,167	7,613,697

This table shows that 1916 was the high-water mark for these companies. The earnings for 1918 were less than those for 1913, and for 1919 were

approximately the same. The additional investment in these twenty-four companies has been more than five hundred million. Eight per cent. of this amount alone would require forty million dollars, and surely nothing less than this can be considered a fair rate of return during this war period. This leaves on the original capital hardly two-thirds of the pre-war earnings. When we consider that these companies have never earned a rate on their investment which compared favorably with even so conservative a business as banking, it becomes clear that before we can hope for any adequate facilities in these lines we must have a drastic revision of rates.

Here, then, we have one industry which was affected quite differently by the events of war-time business than were other lines of business. The very increase in prices which led to increased profits for mining and manufacturing operated to the injury of these lines of business whose prices were fixed by public authority.

During 1916 they were largely operating with materials which they had purchased under 1915 price conditions, or at least had contracted for before the price increase had become pronounced. Wages had not yet risen materially. For the year ended June 30, 1916, the total wages paid by the

railroads amounted to $1,404 million, as against $1,381 for 1914. The increase in wages during these two years had not been proportional to the increase in traffic. The latter had increased more than 10 per cent. while wages had increased only one. But when the competition of general industry had raised the wage level, as well as the prices of materials, earnings fell off rapidly. In 1916 only 40.60 per cent. of the gross revenue of railways was absorbed by wages. In 1918 labor received 54.06 per cent. of the gross revenues collected. In 1919 the percentage to labor was still greater. The increase in traffic without a corresponding increase in wages and other operating expenses gave the railroads earnings in 1916 forty per cent. greater than they had enjoyed in the prewar years. But by 1918 they had fallen below the level of 1912. The decline continued to a new low level in 1919. These forces brought both railroads and other public utilities to a low-water mark in the history of earnings at a time when the earnings of other industries had kept pace with the rise of prices.

In short, during the last five years our price system has gotten badly askew. The money expression which we put upon the services of railroads and public utilities was tied to the previous

price level by our institution of rate regulation, with its technique of valuation and its traditional rate of return on capital.

The necessity for revising this situation by increasing rates to the point where they will cover increased cost has become pretty apparent to the public. The belief that the prices of labor and materials will return to a so-called normal at any early date has been pretty largely disproved by price movements during the last twelve months. Prices are high, money wages are high, and the efficiency of labor is low. No one can tell when this situation will be materially changed. Therefore the public is conceding, even though slowly and grudgingly, that rates must be adjusted to cover these increased costs.

There are two other points upon which the public mind is not so clear. One is the inadequacy of the old rate of return; and the other is the change in the value of the service as measured by the ability of the public to pay. On both those points the facts which have been presented in the preceding chapters should throw new light. To talk of 6 per cent. as a fair and reasonable rate of return when the earnings of national banks over a period of two decades have averaged more than 9½ per cent. on capital and surplus com-

bined, and the dividends have averaged more than 10½ per cent. on capital stock, besides accumulating one-third of their earnings as surplus, is nothing short of ridiculous.

This conclusion has the advantage of being based, not on "opinion evidence," but upon the actual facts of business experience for two decades. The facts cited in Chapter III show that the great mass of industry in the mining, manufacturing, and mercantile fields is not called upon to content itself with earnings of 6 to 8 per cent. The importance of this disparity in the rate of return between the utilities and other industries is in its bearing upon the ability of the public utilities to obtain new capital. They must secure it, as they do their labor and material, upon the general market. No industry, whose prospects are limited to a maximum of 7 per cent. and which will probably earn less, can hope to secure capital in any abundance. The money market is crowded with people who are earning from 15 to 30 per cent. profit, and are quite willing to pay 8 per cent. for new capital. Under such conditions the fate of a public utility which is earning 6 per cent. must be sad indeed.

There is no prospect of an early abatement of demand for capital in this country. The shift of

income from the propertied classes to the laborers means that the demand for capital for better housing, better schools, better facilities of all sorts for meeting the laborer's new demands will be immense, while the supply of capital is reduced because of this very shift in incomes. The railroads and public utilities are already far behind in their plant extension. This makes the acquisition of new capital imperative for them. Nothing but a schedule of rates which will give them a return approximating 9 or 10 per cent. will enable them to secure an adequate supply of it, unless that return is guaranteed by government.

When we consider the question of reasonableness from the standpoint of the value of the service rendered to the user, the increase in rates is justified just as fully as when we consider it from the standpoint of cost of rendering the service. In so far as the services of utilities are purchased by commercial concerns and used as a necessary element in the prosecution of their business, the value of that service has certainly increased greatly. The productive activities of these people have resulted in the enormous profits which have been described. There is no reason why those who utilize these services for the purpose of making such profits should not pay a rate for them

which yields an adequate return to the investment employed. The prices which they receive for their products have doubled; and they can justly be asked to pay double the public utility rates if that be necessary to give an adequate return upon public utility investment.

And it is not alone the corporations which have had an adjustment of their prices and profits. The salaried worker and the wage-earner have enjoyed large increases since the pre-war period. Their returns have been adjusted to the higher prices, and they can afford to pay higher rates for public utility services.

In the absence of public regulation the returns to public utilities would have been adjusted, as have those of the other branches of industry, by the regular working of economic forces. The rates now in force mean deterioration of the service, which is undesirable from the standpoint of the public; and confiscation of property, which is illegal. To give to public utilities a money price which will express their true and just value is our rate problem. The money expression of their services should be brought into harmony with the money expression which has been put upon the value of other things.

CHAPTER XI

THE THEORY OF THE NEW TAXES

The federal government has raised more than sixteen billion dollars in taxes during the last four years. This is exclusive of the three hundred millions per year collected as import duties under the tariff laws. For the most part these funds have been drawn from sources of an entirely different nature from those on which we depended in the past. A fivefold increase in the amount and a revolution in both the theory and practice of our taxation have called forth a flood of discussion. Previous to the war the solid backbone of our fiscal system was the tariff and the excise duties, which yielded roughly three hundred millions each. Corporation and personal income taxes for the fiscal year ended June 30, 1914, amounted to only sixty million dollars. By the fiscal year 1917 the increase in profits for 1916 and some changes in the tax rate had increased the taxes from this source to $360 million. Today the federal revenues are derived for the most part from taxes on incomes and on profits. For the year 1919 the

receipts of government from these taxes, levied on the earnings of 1918, amounted to almost exactly four billion dollars. The income from customs, excise duties, and the newly imposed luxury taxes was less than two billion.

The burden of taxation will be heavy for many years to come. So much was inevitable once we entered the European conflict. When a generation decides to go to war it subjects itself to heavy taxes, not only during the period of hostilities, but for itself and its children afterwards. The increased cost of performing the functions of government at the new prices, the interest on the increased public debt, the sinking fund for the payment of that debt, increased military and naval expenditures, pensions for the soldiers who fought in the war, all these things will operate to keep our national budget at four billion dollars for some years. This means that heavy taxes upon personal incomes will remain with us permanently; it is not at all clear that even the excess profits tax can be abolished for some time to come. At least the party in power does not seem willing, despite its dislike of the measure, to end it all and flee to other ills it wots not of. From one point of view at least, these taxes have been an unqualified success. They have produced the necessary

revenue. The excess profits tax alone, without the corporation income tax, has yielded more than five billion dollars in three years. A new tax which yields each year twice the volume of revenue which all taxes yielded in an average year before the war is a powerful fiscal engine.

Despite their productiveness, these two taxes have been the subject of heated discussion and criticism. They are said to interfere with the accumulation of capital and so with the revival of industry. Since capital is needed to finance our foreign trade, that too is supposed to suffer from these taxes. The high surtax on personal incomes is driving men from business, we are told, and leading them to invest their funds in tax-exempt securities. The excess profits tax is made the special target for most of this criticism. Not only is it supposed to interfere with capital accumulation, depress initiative, cripple foreign trade, but against it is hurled that deadliest of all accusations, that it has raised prices and the cost of living.

The criticism of these taxes drives at two points. First, their justice; and second, their economic and industrial effects. As regards their justice, both the income and excess profits taxes rest upon the principle that the subjects of the

state should contribute toward the support of the government in proportion to their abilities. It assumes that ability is measured by the income which the subject derives under the protection of the government. In the case of individuals this ability rises progressively as personal income increases. In the case of business establishments it assumes that the ability to contribute toward the support of government increases as the ratio of earnings to investment grows larger. A defense similar to the one made on the ground of ability is that which accepts equality of sacrifice as a basis for the apportionment of taxes. Benefit received, which is still another principle for the apportionment of the tax burden, is not commonly cited in defense of income taxes, especially progressive and differential taxes.

But ability and sacrifice are both rather vague criteria for determining justice in taxation. Sacrifice is not capable of exact quantitative measurement, and ability sets no limit to taxes except the subsistence minimum. Obviously that must be left to a man if the tax levy is to be repeated at subsequent intervals. When simply stated, the ability theory usually finds ready acceptance. A man with an income of one million

dollars ought to pay more than a man with an income of two thousand, not only absolutely more, but more in proportion to his income. So much was recognized in the income tax law of 1913. A business which makes 30 per cent. upon its invested capital can fairly be asked to pay a larger percentage of its income than one which makes only 6. While this principle was not so readily accepted, the widespread belief that profits of 30 per cent. were unconscionable and the direct result of war convinced people that they were properly subject to the differential tax.

But while a surtax of 6 per cent. upon large incomes, such as we had in the law of 1913, is generally conceded as just, the case is not so clear when it becomes 65 per cent. The general principle that the millionaire shall pay according to ability helps us little, for obviously he could pay 99 per cent. of his income in taxes and still have left far more than the average citizen.

The inadequacy of such general principles as "benefit," "sacrifice," and "ability," as criteria of justice in taxation becomes apparent when one attempts to defend specific rates of progression by an appeal to those standards. What, then, is the true principle of justice in taxation? Professor Henry C. Adams used to say that before you could

decide whether a particular type of immigration was desirable or not, you had first to inquire how it fitted into the ideal industrial program which we were attempting to realize. The most adequate principle of justice in taxation which I have been able to formulate is that a just tax is one which fits into our industrial and social process in such manner as to bring it most nearly into conformity with our ideal program. This means that before we can pass upon the justice of any system of taxation, we must first formulate the kind of industrial society which we desire to establish. If that society is one in which the final disposition of income is more nearly equal than that which results from the operation of the forces which determine profits, wages, and prices, then progressive income taxes are desirable. If we find, in fact, that profits tend, under the competitive forces actually at work, to exceed the ideal minimum of profits necessary to evoke the effort of business men, then a tax upon the surplus or the excess will tend to bring profits nearer to the necessary norm.

Probably this is pretty much the situation in the United States today. There is general amazement at the extreme size of the larger incomes, and a pretty general conviction that a more nearly

equal distribution of wealth would be a change in the direction of greater justice. The general attitude which courts and commissions, as well as the public, have taken in the matter of fair return upon public utilities and railroads indicates that the public believes that fair profits lie well under 10 per cent. When they observe profits of 20, 30, 40, and 50 per cent., people no doubt feel that justice and fairness demand that a considerable part of them be taken in taxes before the earnings of the less profitable businesses are touched. The more the facts concerning personal incomes and business profits become common knowledge, the more will the dictates of commonsense, fairness, and justice insist that progressive surtaxes and excess profits taxes be retained. And justice is nothing more than what is generally admitted as equitable at the time and in the place concerned. "Equity," says Edwin Cannan, "must be what is regarded as such by the mass of people." The people want a more democratic society. Industrially, that means to them a greater equality of personal incomes. It seems obvious that progressive income taxes and excess profits taxes tend in that direction. Therefore the great mass of people considers that such taxes satisfy the demand of justice in taxation.

There are of course those who insist that this is using the right of taxation to subvert the right of property and of contract. But all taxation is in a sense a limitation of the right of private property, as is all regulation of public utilities. What a man receives for his services, for the use of his property, or for the product of his factories, is his private property subject only to the sovereign right of the state to tax. But it is subject to that right, which is limited in the long run only by the dictates of justice; and justice has for its custodian public opinion. Any arguments based upon justice will be ineffective against progressive income taxes and excess profits taxes, as long as the public mind is directed to democracy as an ideal.

But injustice is not the only criticism levelled at these new taxes. Quite as serious are the elaborate criticisms based upon its alleged industrial and economic effects. There is first of all the assertion that the tax interferes with the accumulation of capital.

In view of what we have said concerning the uses to which profits are put, it is pretty clear that high taxes on large incomes and large profits decrease the volume of capital available for investment and interfere to some extent with the growth of the national wealth. While it is true that the

ability of the recipient of small incomes to save increases as those incomes are freed from the burden of taxation, it is also true that he actually does save a smaller proportion than would the recipients of large incomes or the corporation enjoying large profits. And the increased savings which this class does make do not come so largely to the general investment market but are mainly absorbed by an increased demand on the part of the savers themselves for durable goods like houses, furniture, and automobiles. These new taxes, without much doubt, retard the growth of national wealth and most certainly lessen the flow of funds upon the investment market and the expansion of national "plant." The increase of capital has been one of our chief concerns for a century past, and to the extent that these taxes interfere with it, they must be subjected to most critical scrutiny.

The other criticism of this type which is levelled against these taxes is that they discourage enterprise. The reasoning underlying this assertion is simple. Individuals engage in industry in the expectation of individual incomes and of profits. Whatever forces operate to decrease profits or individual incomes remove part of the incentive for application and industry. These taxes certainly reduce both profits and incomes. Therefore, the

argument runs, they discourage enterprise. Now if profits and incomes at present were only sufficient to stimulate men to perform the various services which they are rendering and to take the risks of industry, this would no doubt be true. The mere theorist might naturally enough make the mistake of assuming that profits and incomes were merely sufficient to do that and nothing more. But certainly the business man who stands in the midst of this stream of turbulent economic forces cannot seriously entertain any such illusions about the nice adjustment of pecuniary rewards to service rendered and sacrifice undergone. The data already presented concerning profits and their ratio to invested capital should be sufficient to convince anyone that actual profits and normal or necessary profits are widely apart over a very large part of the field of industry.

Those who have reasoned about the effect of taxes without appreciating this fact have proceeded on the unverified assumption that the nice adjustments attributed by economists to an hypothetical static condition of society have actually come to prevail in our highly changing dynamic society. If there were perfect competition, if the population were stationary, if there were no changes in the arts of production, no new techni-

cal improvements, no discoveries of new natural resources, no wars and no changes in the level of prices, then it seems reasonable to believe that the rewards which the operations of the market brought to those who render services, those who own property, and those who undertake the risk of production, would be just sufficient to keep them at work at their highest possible efficiency. I say it seems reasonable to believe that it would fall out after this manner, for we have never yet seen such a static society, and therefore do not know what would occur. But to assume for such practical matters as taxation that all these things happen in a highly dynamic society such as the modern western world knows, with revolutionary changes at every point where the static economist assumes stability, is a procedure which is wholly inexcusable.

The truth is that the operations of the market result in giving many people who furnish economic services a share much larger than necessary to bring forth those services. There are "surpluses" which exceed the necessary amount which men demand by way of wages, salaries, interest, rents, and profit. It has been a common experience in the last twenty-five years for men to prepare themselves for professional work in

the expectation of an income of $3,000, but to find themselves presently in possession of many times that amount. It is hard to believe that it is necessary, in the interests of the public welfare, to leave these people the incomes they have been able to command in the situation which has developed.

When we compare the returns which have kept capital and managerial ability in the railroad and public utility field with the returns which the national banks of the United States have earned in the last twenty years, there seems little question that the government could have taken a substantial amount from the latter without driving men from the field. Fifteen per cent. and 19 per cent., respectively, were the earnings of the national banks of New York City in 1918 and 1919. In the field of manufactures and mining, this disparity between necessary and actual incomes or profits is still greater. Here the surplus is often many times larger than the necessary income. In the case of land rent, the existence of this excess income was long since recognized, and formed the basis of a whole theory of a tax upon the so-called "unearned increment" in the value of land. The term "unearned increment" has the objection that it connotes some moral delinquency in the acquisition of the income. These incomes are certainly

unearned, in the sense that they do not correspond to any commensurate sacrifice which has been undergone in their acquisition. The term "unnecessary" income is perhaps the best designation for these returns which are received as wages, interest and profits, and which are in excess of the amount necessary to bring forth the service for which they are paid.

For the theory of taxation the significance of this distinction between "necessary" and "unnecessary" incomes is that the surplus by which the latter exceed the former may be taken by the state without interfering in any wise with individual exertion in the field of industry. A tax which falls upon all profits and incomes alike may discourage the man who receives only the "necessary" income before paying taxes; but a tax which falls only upon the windfalls, the fortuitous gains of industry, leaves the orderly processes of business undisturbed. As we have observed before, such a tax may interfere with capital accumulation, and may be undesirable for that reason, but that is a separate consideration. Individual initiative and enterprise, as well as personal endeavor, will continue unabated.

It is very difficult to believe that anyone has withdrawn from industry, or has even lessened his

exertion, because there has been taken from him part of an income which far outran the usual rewards that fall to men in return for their endeavors. The economist who comes to college and applies himself in the hope and expectation that he may attain to a salary of $3,000 or $4,000 per annum, and presently finds himself the possessor of a consulting practice which yields him $12,000 or $15,000 per year, will not exert himself less if the government takes a much higher proportion than at present in income taxes.

Likewise, the business man who ventures his capital in the hope that it may earn him 10 or 12 per cent., knowing full well that he runs the risk of losing it all, will not be less diligent in the pursuit of his business if, after earning 30 per cent. upon that capital, the government takes from him 6.4 per cent., as by the present excess profits taxes, leaving him 23.6 per cent. True, he would rather have 30 per cent. than 23.6, but 23.6 is better than 10 or 12. And if perchance he should make 50 per cent. on his capital, of which the government takes 14.4 per cent., leaving him 35.6 per cent., this amount will still exceed by 12 per cent. the 23.6 per cent he would have had left after taxes if he had earned altogether only 30. It is extremely difficult to believe that the addi-

tional 12 per cent. will not serve as adequate stimulus to induce him to strive for 50 rather than 30 before taxes. Indeed, the mere proposal that he will not so exert himself borders on the ridiculous. Both the income and the excess profits taxes have the rare distinction of operating in such manner that the more the individual or the corporation pays, the more it has left.

If we are seeking taxes which will leave the income of the masses undisturbed, and at the same time discourage industry and enterprise least, our present excess profits taxes are founded upon the correct principle. Tax only him who receives more income than is necessary to call forth the productive service which he renders; he will not be discouraged. Do not levy heavy taxes upon the property or income of those who are already laboring under financial difficulties because of insufficient earnings; discouragement in that quarter is easy. Modern industry, with its fluctuating markets, its ever-changing technique, its unstable price level, and its sensitiveness to war and rumors of war is sufficiently risky without increasing that risk by subjecting the business man to taxes when his income is already inadequate.

The particular administrative provisions applying to the present taxes may be defective. If

so, they should be and no doubt will be improved, for those who are adversely affected may be relied upon to proclaim their deficiencies. But we venture the assertion, based upon some considerable knowledge of the facts, that the excess profits tax law, with all its administrative shortcomings, does not work one-tenth the inequities experienced under the general property tax today. The reports of special tax commissions, like that of Michigan in 1911 and of New York in 1915, all tell stories of the most gigantic discrepancies in the attempt to attain justice in the administration of that time-honored fiscal measure.

CHAPTER XII

HAS THE EXCESS PROFITS TAX RAISED PRICES?

The most serious question that arises with respect to these new federal taxes is whether they are really borne by those upon whom they are levied, or whether they are shifted off the shoulders of those who pay them in the first instance on to others who had thought to escape the burden by putting it upon rich individuals and prosperous industries. Of all the complex forces which cause changes in prices, taxes are among the most potent and direct. If these taxes raise the prices of the goods and services which are sold by the recipients of large incomes and high profits, then they are a mere delusion and might better be paid by the people directly.

If we may judge by the utterances of business men and of the press, the great mass of the American public believes that the excess profits tax has been largely responsible for the present high level of prices. Most of those who have spoken or written to this effect have thought it unnecessary

to present proof in support of this conclusion. Nor have they taken the trouble to examine in detail the logic of the supposed causal connection. The report of the New York Chamber of Commerce states that "the effect of excess profits taxes on business enterprises and on the high cost of living is so evident as to require little explanation." May it not be possible that here, as in so many other instances in the history of political economy, the co-existence of two phenomena in time may have led to an erroneous conclusion with respect to their causal relations? It is incumbent upon the economist to examine critically the assertions that our first differential tax upon profits raised the price level and raised it by an amount greater than the amount of the tax.

The discussion of this question has proceeded with little reference to the facts concerning prices, profits, or taxes. Some of these facts have already been presented in earlier chapters. They are of such an unusual nature and so essential even in a theoretical discussion of the subject that it is wise to adopt the method employed by Sir William Petty in his "Political Arithmetic." "The method I take to do this," said Sir William, "is not very usual; for instead of using only comparative and superlative words, I have taken

the course to express myself in terms of number, weight, or measure; to use only arguments of sense, and to consider only such causes as have visible foundations in nature."

To one acquainted with the course of prices, profits, and taxes, there are disturbing facts which do not harmonize easily, to say the least, with this glib theory which finds in the excess profits tax the chief cause of the rising price level. The price level did not wait for the advent of the excess profits tax in America. It started its ascent in July, 1915, and continued it blithely until in March, 1917, it stood at 161 per cent. of the 1913 level. It continued its rise after we entered the war until July, 1917, when it stood at 186. No excess profits tax law was passed until October, 1917. At that time prices stood at 181 and no material rise occurred for some months thereafter.

Under this first excess profits tax law the combined corporations of the United States paid 15.27 per cent. of their reported net income in excess profits tax. After doing so, they had remaining net income equal to 210 per cent. of the highest amount which they had earned in any pre-war year. For the year 1918 the excess profits tax rates were increased to the point where they absorbed approximately 25 per cent. of the profits

of that year. In 1919 the rates were materially reduced. As against $2,400,000,000 of taxes in 1918 they yielded only one-half that amount in 1919. Prices in 1918 averaged 196 as against 176 in 1917 and 161 in the month previous to our entering the war. Despite the reduction of the tax in 1919 prices stood at 238 in December of that year while by April, 1920, they stood at 266. What we have, then, is a rise of 61 per cent. in the price level before any excess profits tax was either levied or discussed, and a further rise of 25 points before the tax was passed. Then a comparatively slight rise in prices during the period of our highest excess profits taxes, and a renewed and rapid rise when the amount of the tax was cut in half. If one were satirically inclined, he might affect to look with apprehension upon a further reduction in the excess profits tax. This brief review of the course of prices and of taxes certainly casts serious doubt upon the assertion that "the effect of excess profits taxes on business enterprises and on the high cost of living is so evident as to require little explanation."

Nor does a study of the course of profits lend any support to the statement, "that for every $6.00 or $7.00 taken from the consumer, ostensibly for excess profits tax, only $1.00 ever reaches the

United States Treasury." It would follow from this that profits had increased, not merely by the amount of the tax, but that they had far outrun the amount collected by the government. But this is not what the statistics of profits disclose. They show profits as follows before deducting taxes:—

1913	$ 4,339,551,000
1914	3,940,000,000
1915	5,310,000,000
1916	8,766,000,000
1917	10,730,000,000
1918	9,500,000,000
1919	8,500,000,000

After paying excess profits taxes the amount of net income remaining from 1917 to 1919 was as follows:

1917	$9,100,000,000
1918	7,100,000,000
1919	7,300,000,000

It is not true, therefore, that profits have increased since the imposition of the excess profits tax. 1917 was the high-water mark of profits, and the tax was not imposed until the year had almost closed. After paying taxes the profits of 1918 and 1919 are far less than they were in 1916.

All of this reasoning concerning the effect of excess profits taxes upon prices assumes that the state of demand during the last three years has been such that the public has been willing to pay practically any price. It also assumes that

sellers would not have charged high prices in the face of this demand except under the necessities imposed upon them by the tax. This latter is an assumption that needs proving. It is not the sort of thing which can be accepted as a matter of course. It is conceivable that the profits of industry might have been such a small return upon the capital that the addition of a tax made it no longer worth while for the entrepreneur to remain in production. Therefore, unless the tax can be added to price, production is decreased and price rises in consequence. Now the figures already presented show that the profits of 1916 were twice as high as those of any pre-war year, while those of 1917 were two and a half times as high. The table on the next page shows that the tax fell heaviest upon industries like manufacturing, mining, and trade. These are the industries which had profited most by the war.

Where the forces are so many and so complex as are those which underlie the movements of the price system it is impossible to make convincing statistical proof of causal relations. We must supplement our investigation of facts, therefore, with *a priori* analysis. Here the economist's analysis of the forces which control price lends no color to the proposition that a differential tax

on busines profits will affect price. No doubt it still holds true that supply and demand are the only doors through which the effective causes of change can reach prices. We may safely assume, too, that the marginal producer will have an effect upon price, especially if he is tax-free and if he contributes a substantial portion of the supply.

NET INCOME AND EXCESS PROFITS TAXES OF ALL CORPORATIONS IN THE UNITED STATES PRE-WAR AND IN 1916 AND 1917

(000 omitted)

Year	Financial	Railroads and Public Utilities	Manufacturing, Mining, and Mercantile	Total
Average net income, three years, 1911-1913	$459,154	$ 913,299	$2,422,683	$ 3,795,136
Net income, 1916	528,506	1,541,076	6,696,327	8,765,909
Net income, 1917, before paying excess profits taxes.	962,860	1,303,824	8,463,676	10,730,360
Excess profits taxes	41,767	60,450	1,536,531	1,638,748
Net income, 1917, after paying excess profits taxes.	$921,093	$1,243,374	$6,927,145	$9,091,612
Per cent. tax to net income, 1917	4.33%	4.63%	18.15%	15.27%

Now with respect to the relative position of supply and demand, the situation during the last

three years has probably been one in which the supply of goods could be but little increased. Further, the visible supply was far short of the demand at pre-war prices or even at the prices which prevailed when the excess profits tax was first imposed. The condition was one, therefore, in which it was possible to sell goods for a price largely in excess of cost and so at a profit above normal. In such a situation prices rose. But surely it is a bit bold and unwarranted to assume that prices will rise to this high point only under the stimulus of excess profits taxation.

The tax can be added to price only if it falls on the marginal producer. But the marginal producer, if he be the one who is operating at the least profit, or at any profit not greater than 8 per cent., pays no tax. If he be a producer who was making more than 8 per cent. and demands that larger amount because of opportunity cost, there is no escape for him by shifting to another industry since he will be obliged to pay the excess profits tax in any other industry in which he may engage. It would seem pretty clear, then, that short of actual withdrawal from productive enterprise, the tax is not one which will affect supply in such manner as to increase price.

It is of course conceivable that the marginal

producer may be of so little significance that his withdrawal from the field of production would not cause a material curtailment of supply, and that his presence does not affect competition sufficiently to influence prices and prevent their rise.

On the number and importance of non-tax-paying producers, we have, fortunately, some statistics. 1918 was the year of the highest excess-profits tax rates. A sample of 6,712 corporations shows that 3,064 of that number paid no excess profits tax whatever. These represented almost exactly one-third of the total invested capital of this group of corporations. They earned, on the average, 5.2 per cent. During the pre-war period, their capital was over 38 per cent. of the total of this group, and they earned 7.4 per cent. on their invested capital, and yet these corporations had increased their capital by 25 per cent. It is very difficult to believe that these establishments representing 45 per cent. of the total number and one-third of the total capital exercised no influence in competitive price-making. When we examine the remaining 3,648 corporations we find that 1,497 paid tax under the 30 per cent. bracket and that their total tax amounted to only one-fourteenth of their net income. These two groups together had over 60 per cent. of the invested capi-

tal of these 6,712 corporations. Certainly their freedom from excess profits taxes should have given us abundant guarantee against the shifting of this tax.

But, as J. A. Hobson long since pointed out, it may be that neither of these groups is marginal, that the marginal man is found among those who made extraordinary profits. These are the men who have great resourcefulness and initiative and can easily shift to new fields. But shifting avails them nothing, as the excess profits tax applies to all fields of industry.

But one possibility still remains. May they not agree with the father of Huckleberry Finn? When the elder Finn was just entering upon the early stages of delirium tremens, he summed up his attitude toward our political institutions in the trenchant conclusion that "this is a hell of a government." May they not, similarly minded, withdraw from industry altogether, and from their citadel of past profits, accumulated in the days when there were no excess profits taxes, observe what one journal calls the "vampire-like" activities of the government.

The rate of profits which was sufficient to induce men to remain in business during the pre-war period would seem to be the best evidence on this

point. Of the 6,712 corporations whose incomes were cited for 1918, 2,151 corporations paid practically all of the $121,039,923 of taxes of this group, 1,497 paid $7,413,123 and 3,064 paid no taxes. During the pre-war period 1911-1913 these 2,151 major tax payers had earned $89,298,925 on an invested capital of $603,000,000. Evidently 15 per cent. was sufficient to keep them in production during these pre-war years. During 1918 they earned a net income of $281,775,190 on an invested capital of $1,060,000,000 or 26.6 per cent. on their invested capital before taxes. Of this the government took 43 per cent., leaving them approximately 15.2 per cent. free and clear on an amount of capital 40 per cent. larger. This additional capital largely represented war profits of the years preceding 1918. These corporations would hardly be moved to withdraw from industry altogether by the workings of the excess profits tax.

But these taxes include not only those upon excess profits, but the war profits taxes as well. Since the war profits taxes were levied for only a single year and do not apply to the profits of 1919, or subsequent years, we must know the size of the excess profits tax alone and the ratio of that tax to capital. These taxes amounted to

$88,309,393 for the 2,151 corporations, and constituted 31.3 per cent. of the net income of these corporations, leaving them 18.2 per cent. on their invested capital after paying excess profits taxes, as against 15 per cent. in the pre-war period. Under the rates in force in 1919 these corporations would have paid less than $58,000,000, and would have remaining over 21 per cent. on their invested capital.

Which of these groups of corporations, then, actually curtailed supply, or even threatened to do so, in such manner as to produce the rise in price? In other words, who shifted whose taxes? In the absence of monopoly it is extremely difficult to believe that any of them curtailed their supply. The buyer was placed at the mercy of the seller, not by the excess profits tax, but by the fact that the general supply of commodities had reached its maximum, and that governments with their superior power were competing with the individual. There is absolutely nothing to prove that buyers would not have been just as completely at the sellers' mercy if there had been no excess profits tax. Nor is there anything to prove that the seller would not have pursued his advantage as vigorously. That is an end for which sellers strive diligently and skilfully.

But what of monopoly? It is a well-known principle of price that prices of goods marketed under monopolistic conditions are fixed at the point where they will yield the highest net profit. It avails the monopolist nothing, therefore, to raise his price when he is confronted with an income tax. Any change in price will lower his tax, it is true, but it does so only by lowering his income. The amount that remains after payment of taxes will be less at the new price than at the former one. Of course, if a monopoly puts itself upon a fixed profit per unit, as some automobile manufacturers are said to do, then it may be that the imposition of an excess profits tax will produce an increase in price. But this is only because the monopolist had not pushed his advantage to its logical conclusion before.

In cases of monopolistic enterprises or of other enterprises which are making a high percentage of profit, the working of the excess profits tax actually tends to stimulate the investment of new capital in the old enterprise and thus to increase the supply and lower the price of the product. And this is the more true as the maximum rates of taxation are increased. For the additional invested capital will not only add to the ultimate net income available for distribution the amount which

is earned from the sale of the additional product, say 5 per cent., but it will increase the exemption by 8 per cent. of the invested capital and so reduce the amount which is subject to the highest rates. Thus, if a company on an invested capital of $10,000,000 makes a net income of $2,500,000 (or 25 per cent.) its excess profits taxes under the 1919 rates would be $439,400 and its net income after taxes $2,060,600. Now assume that the investment of $2,000,000 of additional capital will increase its net income by $100,000 or 5 per cent. on its additional capital. This return would probably not be sufficient inducement for the investment. But an excess profits tax at even the low rates of 20 and 40 per cent. which prevailed in 1919 will now be only $367,400 on the net income of $2,600,000, leaving $2,232,600 after payment of taxes. If we compare this amount with the amount remaining originally, we find that the net income left to the corporation has increased by $172,000 or 8.6 per cent. on the additional invested capital of $2,000,000. This would probably be a sufficient inducement for the new money, as it is well above the ordinary rate of interest. This effect of additional invested capital has been recognized by those who have advised corporations in excess profits tax matters, and has been noted by

J. C. Stamp in a recent article in the *Economic Journal.*

Neither the statistical facts nor the implications of economic law support the conclusion that the excess profits tax has been responsible for the increase in price which we have witnessed during the last five years. The most that can be said for it is that the tax may have given some seller the courage to move his price up a little earlier, or a little farther, than he would otherwise have done. But not even this much can be conceded for the rise of 61 points which occurred between July, 1915, and March, 1917.

CHAPTER XIII

THE PART PLAYED BY THE BANKS

Striking as has been the growth of profits, wages, and prices, it has been no more spectacular than the changes which have occurred in our banking situation. In 1900 the individual deposits of all banks in the United States were $7.2 billion; by June 30, 1914, they had increased to $18.5 billion. At the signing of the armistice they stood at nearly $30 billion. In 1919 they were $33 billion, and by 1920 they are no doubt more than $37 billion. The volume of bank credit at the disposal of individuals has therefore doubled in the last six years, and it has increased since the signing of the armistice by an amount equal to the entire deposits of the country in 1900. It is clear, then, that the expansion of bank credit has kept pace with the rise of prices during the war and since the armistice.

No adequate discussion of the causal forces which underlie industrial process is possible without a consideration of this growth of bank credit. There is a widespread belief championed by the

quantity theorists that this increase in banking activities is the prime cause of the rise in prices, and therefore of profits and wages. Is the doubling of bank credit cause or effect in the movement of prices? If this expansion of bank credit is only the natural effect of the rise of prices it presents only the problem of adjusting our reserve requirements and other banking arrangements so as to permit the necessary expansion. If it is a cause, then those who believe that we should return to a lower level of prices are correct in their insistence upon a policy of credit deflation.

How has the expansion of the available banking resources affected productive activity? For even though it raised prices, if at the same time it stimulated production, the undesirable effects of the rise in prices may be more than offset by our gain in productive output. This is especially true if our increased production has resulted in an addition to the capital equipment of the country by way of plant and machinery. In this connection it is pertinent to inquire, too, what effect the contraction of bank credit would have upon productive activity. Even though its expansion may have been an evil, its contraction may be a greater one.

The first thing to be observed in clearing the ground for this discussion is that there is a close interdependence between this expansion of deposits and the increase in the loans and investment securities which the banks own. Their loans and investments amounted to $21 billion in 1914 and to $37.5 billion in 1919. June 30, 1920, they were approximately $42 billion. One of the pieces of financial naïveté in which the American public still indulges is the notion that these bank loans and securities arise out of and are made possible by increased deposits. Time deposits are savings made by individuals, and even demand deposits represent savings to some extent. It is not likely that actual savings thus deposited in the banks exceeded the increase in securities owned by the banks during this period. That increase was less than seven billion dollars.

The remainder of the deposits do not represent money saved and paid into the banks by customers, but arise out of loans which the banks have extended and credited to the accounts of the borrowers as deposits. The amount of new deposits created out of loans during these six years, 1914-20, is probably not less than twelve billion dollars, and may amount to as much as fifteen billion. In other words, the larger part of this

increase in deposits has come about through a manufacture of credit on the part of the banks.

Two other technical points must be cleared up as a preliminary to a discussion of the part played by the banks. Bank credit once created through the expansion of loans tends to remain as a permanent increase to banking deposits. An examination of the statistics of banking deposits shows that the deposits of all banks in the United States have practically never shown a decrease in the last thirty years. Even in the disastrous depression of the nineties there was a decline in deposits only in the panic year. This amounted to less than 1 per cent. Thereafter deposits began to increase, and in 1895 stood 5 per cent. higher than in 1892, and almost 7 per cent. above 1893. Most of the loans made by banks are left on deposit with the institutions which make them and increase the deposits of that institution accordingly. When they are drawn upon, the recipient of the check deposits it in turn in the same bank or some other bank of the system. It is only when the maker of the original note pays that note with bank deposits which represent savings that the deposit first created by the loan is extinguished. If he cancels his obligation to the bank

by a new loan, either at that bank or some other, deposits are not decreased.

The other observation is that the belief that the great mass of bank loans is liquid is wholly unwarranted, the utterances of bankers and economists in the literature of the subject to the contrary notwithstanding. The mere fact that 90 per cent. of all loans in the portfolios of the banks run for six months or less would by no means warrant the conclusion that the banks could cancel these loans upon maturity, thus shrinking their resources by a like amount, and their deposits by a very large amount. No one knows what results would follow such an operation, for the reason that we have never yet experienced a shrinking in loans as great as 10 per cent. in any one year since 1890. From 1893 to 1894 the decrease was 7 per cent.; from 1907 to 1908 it was 3 per cent. Except for a negligible decrease from 1895 to 1897, the volume of loans has risen steadily. We have, therefore, practically no experience in the effect of a drastic reduction in loans. The individual bank can contract its loans provided its customers can secure accomodation from other banks, and without doubt individual banks do this on occasion. But the possibility of contraction by all banks is limited by the power of the bank's de-

positors to save or to contract their business operations; and is practically never availed of by the banking system as a whole. The only other condition under which bank loans could be greatly contracted would be one in which the price level were reduced in a drastic manner. Thus, if we were to return to a price level one-half as high as the one which exists at present, the amount of bank credit needed would be much less.

An analysis of the income accounts of the national banks of the country will illustrate the importance of credit manufacture for practical banking. The national banks of New York City earned $174 million gross for the year ended June 30, 1919. Of this amount $157 million consisted of interest and discount received on loans and investments, and the remaining $17 million came from exchanges and collections and from other earnings. Of these gross earnings they paid out $18 million, or 10 per cent., in salaries and wages, $65 million as interest on deposits and borrowed money, $15 million in taxes, and $12 million in other expenses, making a total of $110 million of operating expenses; leaving net earnings before charging off losses or crediting recoveries on assets, of $64 million. After charging losses of $13 million and crediting recoveries of $5 million,

the net earnings of these New York banks were $56 million, or 19.04 per cent. on their combined capital and surplus of $295 million.

How does a group of institutions which derives 90 per cent. of its earnings from interest on loans and investments, none of which bear a rate much above 5 per cent., contrive to make 19 per cent. on its capital and surplus? If we examine the assets we discover that the resources of the bank which are tied up in non-earning assets such as Reserve with the Federal Reserve Bank, Cash in Vault, Banking House, Furniture, and Fixtures, amount to more than twice the capital and surplus. This is after eliminating such items as Exchanges for the Clearing House, Amounts Due from Other Banks, and Checks on Other Banks. A natural explanation would be that the banks receive deposits and borrow money, paying a low rate of interest, and then loan it out at a higher rate. But it is hardly possible to explain it in this manner. The total interest paid amounts to $65 million, while the interest received is two and one-half times that amount. It is evident that the amount of money borrowed and deposited with the bank as savings must be far less than the three billion dollars of loans and investments. What has actually happened is that the bank has loaned out

to people who have left those loans with the bank as demand deposits a large amount of credit in excess of its capital and surplus and deposits made by real savers. These demand deposits amount in round numbers to $199 million. The unique power which the banking institution has is this ability to manufacture credit, sell the right to its use to individuals, and yet be assured that the credit shall remain upon deposit with the bank and not be drawn out in such manner as to subject the bank to depletion of its cash reserves.

In tracing the effect of the expansion of this manufactured credit during the last five years we must take as our point of departure the nature and function of bank credit. To the extent that the new loans and deposits simply represent savings on the part of those who deposit them with the banks instead of investing them directly, there is nothing mysterious about it. The depositors have simply accumulated capital and have given the banks the use of that capital in return for a low rate of interest and for the right to withdraw it upon short notice. The banks in turn loan the use of these funds to others at an increase in the rate, thus making a profit for themselves. They simply act as middlemen, as it were, between those

who save and those who desire capital for investment purposes.

Any increase in deposits from actual savings would not affect price, even according to the doctrines of the quantity theorists. It would simply mean that these depositors have placed their purchasing power at the disposal of the bank instead of exercising it themselves. The bank in turn puts it at the disposal of those who need capital, either by loaning it to them or by buying the securities which they issue. Demand for goods is by this process diverted from one use to another, but is neither increased or decreased in amount and cannot therefore affect the price level.

But what of the ten billion dollars which were not saved and deposited, but which were manufactured by the banks? They, too, put purchasing power at the disposal of business men who desire capital goods in the shape of plant, machinery and supplies. Neither the borrower nor the banker knows to whom savings have been loaned and to whom manufactured credit. Is this increase in deposits also an addition to the capital of the community? Clearly not, if by capital we mean, as does the economist, produced goods devoted to further production. The most that can be said for it is that it may, and often does,

initiate new productive activities which result in increased output and make possible new savings. If the credit expansion occurs in time of business stagnation, it probably has this effect. For all the labor was already being fed, clothed, and housed when it was not productively employed. The increase in production will not normally be accompanied by a like increase in consumption. When production increases more rapidly than consumption, capital is accumulated. But this result does not necessarily follow. The bank loan may not be used for the purpose of initiating new productive activity, or the new production may conceivably be accompanied by a like increase in consumption.

But when all the productive resources of the community are already at work, as was the case from 1916 on, the additional credit can hardly initiate new productive activities. It can increase production only by placing the purchasing power at the disposal of those who would draw labor and material away from less productive enterprises to those which are more efficient. If it succeeds in doing this, then capital accumulation may be stimulated.

There is one further possibility. While the new bank credit is not capital in the economist's

sense, it undoubtedly gives the borrower purchasing power. If his confidence in his venture is sufficient, he will use this purchasing power to bid up the prices of the commodities he needs, thus increasing the general level of prices. This will operate to decrease the purchasing power and probably the consumption of those classes in the community whose incomes tend to lag behind prices. The expansion of credit thus imposes upon these latter classes a sort of enforced abstinence from consumption, and thus operates to bring about an increase in capital in the form of new equipment which covers and validates the newly created credit.

During the last six years our expanding credit has been accompanied by a large volume of savings and investment. To the extent that bank credit has stimulated production or, by raising prices, has repressed consumption, it has been a contributing cause of the increase in capital accumulation.

The exact effect of the expansion of bank credit upon production since 1914 is not easily determined. The outbreak of the European war was succeeded by a period of depression in the United States. During this time Europe, and especially England, came into our market, first for food-

stuffs and explosives, and then for various forms of manufactured goods. She was not in a position to pay for the large volume of exports in the usual manner by sending us imports. What she did have was first of all American securities previously purchased from us; an ample supply of gold, part of which she had drawn from America during the hectic months immediately preceding and following the outbreak of the war; and excellent national credit.

Of these three kinds of resources only gold was suited to serve as an available means of payment for the exporter of foodstuffs and for the manufacturer who had contracted to make goods suited to England's war needs. They had to acquire the means of paying the labor, materials, and supplies needed to carry out their contract. The manufacturer could not meet his payroll nor his invoices with Anglo-French bonds nor even with gilt-edged American sceurities which had formerly been sold abroad and which were now being returned and offered for sale in the American market. Gold he could use, and of this Europe sent us $137 million in the first six months of 1915 and $420 million during that year. But gold imports were not sufficient to meet the obligations which the allies were incurring here, to say noth-

ing of the increased payrolls and invoices for labor and supplies which our manufacturers were obliged to meet in advance of delivery.

One of the chief functions of bank credit is to meet the necessities of such a situation. The manufacturer's source of funds was naturally the banker. The banking fraternity knew that the credit of the English and French governments was sound and they were willing to bank upon it. It was they who extended to business men the bank credit necessary to put the retarded wheels of industry in motion. The gold which Europe sent us had found its way into their reserves and made the supply of loanable funds abundant. Not only were they lending to the manufacturers who were producing on order for the allied cause; they were loaning also to the investing classes who were buying American securities from Europe at bargain prices. The English used the proceeds of these security sales to make payment to the manufacturer on munition contracts, and the latter met his obligations previously incurred at the bank. Without the willingness of the banker to extend bank credit the revival of industry and the large productive output which it brought would have been much retarded.

The same process continued throughout the

latter part of 1915 and 1916, with one addition. By the autumn of 1915 the obligations of Europe on bills of exchange and other claims in the hands of American bankers amounted to $800 million. It was obviously impossible to cover any such amount with gold, and the inflow of American securities was not proceeding at a sufficiently rapid rate to cover our war-time exports. The obligations against Europe were accumulating in dangerous quantities. The first Anglo-French loan amounting to $500 million was therefore arranged in the autumn of 1915. Gold imports reached the then unprecedented figure of $76 million in October, followed by $67 million in November. This served as a lubricator for the absorption of these securities.

Throughout 1916 the expansion of bank credit for the purpose of increasing the manufacture of war facilities continued steadily. As yet there had been little increase in prices, and the expansion of credit was confined largely to the financial center of the country, to which the business men went for the financing of their new operations. Between June 30, 1914, and 1916 the total loans and investments of all banks in the country expanded by $3.8 billion. $1.3 billion, or 35 per cent., of this occurred in the Clearing House Banks of

New York City. During the next three years ending June 30, 1919, loans and investments expanded $13 billion, only $1.6 billion of which, or 12 per cent., occurred in New York City. Or putting it in a slightly different way, in the first two years after the outbreak of the European war the loans and investments of the New York Clearing House banks expanded by 56 per cent., while those of the remainder of the country increased only 13 per cent. During the three years following the increase for New York Clearing House Banks was 49 per cent. while that for the remainder of the country was 53 per cent. When once the demand for bank credit occasioned by government financing and the rapid rise in prices became general, the increase in loans and investments of banks was at much the same rate in all parts of the country. By 1917 we had our productive resources pretty fully employed and the further expansion of credit did little to stimulate output.

What function did the enormous extension of credit perform after we had attained a complete employment of our productive resources? One thing is certain, and that is that it enabled those who were in the market for goods to sustain and make effective their demand at ever-increasing prices. By June, 1916, the level of wholesale

prices for all commodities had risen on the average by only 19 points since 1913, according to the Bureau of Labor index number, and by 23 according to the Price Section index. The greatest increase had occurred in the prices of metals and chemicals, which had risen 69 and 85 points, respectively. Building materials had risen 28 per cent., the clothing group had risen 20 per cent. and the products used for clothing 17 per cent. In other fields the rise had been slight. But beginning with August, 1916, a fairly rapid rise in prices began which reached 146 per cent. of 1913 in December, 161 in March, 1917, and 185 in June, 1917.

There is no doubt an intimate causal interdependence between this increase in bank credit outstanding and the rise in prices. The difficulty is to determine whether the growth of credit is cause or effect of the rise. It is one function of the bank to furnish credit exchange media needed to carry on the business of the community. It is to their self-interest to expand credit when this can be done safely and the condition of the reserves permits it. When forces are operating to increase production or to increase price, bank credit expands rapidly. This is the situation in times when we are going from depression to prosperity.

When production and prices remain stationary or fall, as they do in time of depression, the amount of exchange media in the form of bank credit falls slightly.

Now it is clear that the active bidding of the European allies for American goods at high prices, backed by their willingness to send us a billion dollars of gold, several billion dollars' worth of American securities, and several billion dollars more of their government bonds, would naturally raise prices, and thus stimulate production. By the middle of 1916 the flow of products was fully 10 per cent. above that of 1914, and wholesale prices had, as we have seen, risen approximately 20 per cent. Retail prices had of course risen less. While the prices of securities had not risen the volume of trading on the exchanges had doubled. In view of the increased production and the higher prices, it is reasonable to estimate that the necessary volume of exchange medium would have increased by 25 per cent. The individual deposits of all banks on June 30, 1914, were $18.5 billion. A 25 per cent. increase would have brought them to $23.1 billion. They actually stood, on June 30, 1916, at $22.8 billion. There is nothing in the statistics of the situation, therefore, to indicate that the increase in production

and the rise in prices were not the causes which constantly outran the volume of bank credit and made its expansion necessary.

It is a serious weakness of the quantity theory that while it runs in quantitative terms it rarely admits of convincing statistical proof. Under the stimulus of European war demand prices rose, and the production of goods increased. With more goods to be exchanged at higher prices an increase in the volume of credit becomes necessary. The conclusion of the Federal Reserve Board in its Bulletin for October, 1919, is at least a plausible one. "It may be stated as a general proposition, therefore, that changes in the volume of currency in times of expansion follow price changes. They do not precede them. There is, therefore, no foundation in present American experience for the view still sometimes urged that changes in the volume of currency are responsible for changes in prices."

The effective cause of an expansion of credit must be sought in times of peace in the business community's forecast of demand and price. When the industrial situation inspires confidence in the future of demand at high prices, borrowers apply to the banks for additional credit. When the future of demand and of prices is uncertain

credit does not expand, no matter how low the rate of interest or how great the ability of the banks to loan. If the banks do not share the business man's optimism for the future and refuse to extend credit, they can without doubt check both prices and production. This control over the situation is one of the secrets of the banker's power.

When government adds its demand for war materials and products to that of an exuberant business public intoxicated by profits, prices are bound to rise rapidly. When the United States entered the war the public mind was in no state where the banker could be expected to apply such checks as lay within his power to prevent increases in the price level. The country had unprcedented reserves of gold as a foundation for its credit structure. It had a banking system which presented all the mechanism necessary for expanding credit rapidly. It had a government supported by public opinion in its determination to win the war at any price. That government chose to secure the goods it needed for the prosecution of the war by bidding for them against its citizens rather than by commandeering them at low prices. It secured the purchasing power needed to make its demand effective by borrowing from the banks in anticipation of the sale of bonds. It encour-

aged these same banks to loan to individuals who bought bonds and in some instances to those who paid taxes. These individuals had plenty of high-grade security to offer as collateral in the form of United States government bonds, American industrial and railroad securities, to say nothing of the general credit of enterprises which were making unheard-of profits. The banks expanded credit freely in response to this demand, and supported the constant rise in prices which resulted from the general state of mind of the business community and of the government. To say that the expansion of credit is the prime cause of the rise in prices because prices would have risen less if banks had refused to expand credit is very much like saying that buildings are erected because of the abundance of wheelbarrows in which to convey bricks. Without doubt the curtailment of the supply of wheelbarrows would impede building operations, but we are not therefore warranted in ascribing the erection of unsightly buildings to the undue multiplication of wheelbarrows.

The exact effect of the expansion of bank credit upon prices is today largely an academic and historical problem. Its solution should help to guide nations in the war-time financing of the future. After all, prices have risen, and bank credit has

doubled in the short space of six years. What we really desire to know is what will happen if we contract bank credit. There is no harm in one price level as against another, once all prices have been adjusted to the new level. It seems almost certain that any contraction of bank credit will produce a decrease in business activity, with resulting unemployment and a fall in production. Neither financiers nor economists are at all clear about the exact effects of contraction and expansion in the volume of credit outstanding. It is significant that the period of sustained prosperity which we have enjoyed from 1898 with only slight interruptions has been accompanied by a sixfold increase in the volume of credit. Because we are so uncertain of the effect of contraction, there is much talk of deflation, but little or no positive action in the matter. The Federal Reserve Board is the one institution in a position to compel deflation, but evidently it fears the consequences of contracting credit.

There is evidence in the bank statistics that the expansion of credit cannot continue much farther. It has every evidence of being in that portion of the business cycle which precedes commercial depression. If such a depression does come, the expansion of credit will cease. Since 1914 American

banking has run through its usual course during the various phases of the business cycle. During the first two years after the outbreak of the European war the New York clearing house banks increased their loans by more than fifty per cent. The banks in the remainder of the country increased theirs by a little more than ten. When once war prosperity had become thoroughly established and widespread, as in 1916, bank expansion went on at much the same rate in all parts of the country until the signing of the armistice. Then we expected and would naturally have had a cessation of this movement. But we feared the possibilities of post-war depression and so continued with a liberal banking policy. By April, 1919, post-war prosperity was in full swing and our banking expansion continued. But not at the same rate in all parts of the country. The clearing house banks of New York City expanded their loans rapidly until October, 1919, but since then they have been contracting. During the calendar year 1919 their loans and investments increased by a little more than 11 per cent. At the time of the May, 1920, call of the Comptroller of the Currency their loans and investments were less than 2 per cent. above those of June, 1919.

In the interior the situation has been quite dif-

ferent. In Detroit, for example, the increase in loans between June 30, 1919, and May 4, 1920, was 50 per cent. For all the state banks of Michigan and Ohio combined, the increase in loans during the calendar year 1919 was 41 per cent., and the spring of 1920 saw a large additional increase. The New York banks, including the Federal Reserve Bank, had practically exhausted their power of expansion by January, 1920. But not so the interior banks. There the lending power was still large. The reason for this is that the New York clearing house banks had increased their loans and investments by 139 per cent. from June, 1914, to June, 1919, while the national banks of interior reserve cities had increased theirs by only 84, and the country national banks by only 34 per cent. For all banks, national and other, outside New York City, the increase in loans and investments had been less than 70 per cent. The interior banks had, therefore, a much larger power of expansion than had the banks in the financial center of the country, and found themselves able to extend bank credit when New York was already exhausted.

Incidentally, this difference in the rate of expansion in New York and in the remainder of the country is reflected in their rate of earnings.

RATIO OF NET EARNINGS TO CAPITAL AND SURPLUS OF NATIONAL BANKS

Year Ended June 30	New York City National Banks	All Other National Banks
1914	8.85%	8.30%
1915	7.77	7.00
1916	11.78	8.30
1917	15.52	9.70
1918	15.01	10.40
1919	19.04	10.90

Now this disparity between the extent of expansion in the center of the country and in the interior is exactly what anyone conversant with the laws of the business cycle would expect. In the earlier portion of a period of business prosperity, banks in the financial center expand their loans much more than do the interior banks. When prosperity has reached flood-tide, the interior moves more nearly with the city banks; and in the last stage before a crisis the loans of the New York banks are stationary or declining, while those of the country banks are still advancing. If the remainder of the cycle of loan expansion runs true to form, we shall witness a further moderate expansion in the interior city banks and in country banks, while New York is at a standstill or actually declining. This is exactly what happened in the years immediately preceding the panic of 1907, as is shown by the following table:

Bank	1907	1906	1905	Ratio 1907 to 1905
New York Clearing House Banks	$1,088,597,200	$1,063,736,900	$1,136,920,800	96%
New York National Banks	712,121,000	702,051,000	805,665,000	88
Interior Reserve City National Banks	1,591,531,400	1,475,726,500	1,343,858,000	118
Country National Banks	2,374,931,500	2,120,205,800	1,848,986,000	128

When this last phase of the cycle has run its course, bank expansion will be checked by a period of depression, as will prices, wages, and profits.

It has been rather generally assumed that the establishment of the Federal Reserve system has altered the situation in such manner as to bring the action of the banks under the control of the Federal Reserve Board. Under our old banking system New York was not only the financial center of the country, but it was the custodian of our banking reserves. Every bank in the system was a law unto itself, and could expand credit pretty much as it chose. Today we are told that "the unused lending power is entirely under the control of the Federal Reserve Banks . . . since the ordinary banks are indebted to the Federal Re-

serve Banks for much more than the reserve balance which they are required by law to maintain." In other words, all the reserves which the member banks carry with the Federal Reserve Banks have been loaned to those banks by the Federal Reserve Banks. It is assumed, therefore, that the member banks can increase their reserves only by further borrowing from the Federal Reserve Banks. If the Federal Reserve Board chooses to refuse these loans, the banks will not be able to increase their reserves and so will not be able to extend their loans. For increased loans mean increased deposits. Increased deposits mean increased reserve requirements, and all reserve must be carried with the Federal Reserve Banks.

It is true that the New York member banks, the reserve city banks, and the country banks are all indebted to the Reserve Banks for much more than the reserve balance which they are required by law to maintain. But as Professor Walter W. Stewart has pointed out an examination of the balances which the interior banks carry with the New York banks shows that the country banks can add to their reserve balances with the Federal Reserve Banks without borrowing from them. The net balances which country member banks carry with their city correspondents actually exceed their

lawful reserve with the Federal Reserve Banks. They also exceed the borrowings of the country banks with the Federal Reserve Banks. Not only do the borrowings and rediscounts of the New York banks with the Federal Reserve Bank exceed their reserve balances, but in addition their obligations to interior banks exceed their borrowings and rediscounts with the Federal Reserve Bank.

In short, New York is still the banking center of the country in a very important sense. The interior banks carry with the Federal Reserve institution only the amount legally required. The remainder of their idle funds they carry with the city banks, and especially with New York. They may avail themselves of those funds for the purpose of increasing their reserves sufficiently to support increased credit expansion. The ability of the Federal Reserve Board to exercise moral suasion may be large. Its ability to contract the loans of country banks by compulsion is limited, and if exercised against the will of the banks will simply lead to withdrawal of funds from New York, as in 1907. Whichever turn events take, it is pretty clear that we are nearing the end of this period of credit expansion which has accompanied the events of the last six years.

CHAPTER XIV

HOW CAN REAL WAGES BE RAISED?

What light do the facts set forth in the foregoing chapters cast upon the problem of raising real wages? For after all that still remains our most persistent social task. The nature of our society makes it inevitable. We are pre-eminently an industrial society, and we are aspiring to become a democratic one. Being industrial we believe that opportunities for the development of one's talents and personality depend in considerable measure upon the possession of an adequate supply of this world's goods. Being democratic we believe that the capacity for living a well-ordered and satisfying career inheres in most of the members of every class, and that many born into each class have the capabilities needed for intellectual and artistic attainment. Therefore the problem of providing for each class of society a minimum standard of well-being becomes for us nothing less than a cultural problem.

The experiences of the last five years reveal pretty clearly two fundamental facts. The first

of these is that we have such a reserve of productive capacity in this country that the possibility of raising the real wages of labor to the point where the means of well-being shall be realized for all classes remains no longer a mere dream. It has become a possibility.

The second lesson is that the mere raising of money wages is not adequate to effect the desired increase in real wages. The fact that money wages affect the cost of production and so prices; and that money wages must be paid out for goods before they become real wages involves us in a hopeless circle. We have learned, too, that money profits, after paying the special taxes on differential earnings which we have imposed during the war, have not risen so rapidly as have prices or money wages. Profits of $6.7 billion in 1919, as against $4.3 billion in 1913, and an average of almost $4 billion in the pre-war period, does not indicate that the entrepreneurs have improved their situation to any marked degree, since one dollar now goes less than half as far in the purchase of goods. If the excess profits taxes and the heavy taxes on corporate incomes were abolished, the earnings of corporations would have risen as rapidly as wages and prices. But there is no probability at present that the corporations will

be relieved from heavy contributions at an early date. During 1916 and 1917 these people did gain an unusual advantage, but since that time increasing wages, decreasing output, and heavy taxes have reduced the amount available for dividends to the point where their share of the product is less than in the pre-war period. The individual stockholder never received an increase in dividends proportionate to the increase in prices, except for the years 1916 and 1917. Roughly the dividends paid by all corporations were as follows:

1909	$2.1 billion
1913	2.9 "
1915	2.6 "
1916	3.8 "
1917	4.6 "
1918	4.3 "
1919	3.9 "

It is clear that dividend payments for all corporations in 1918 and 1919 have lagged far behind the price level. The practical conclusion that follows from all this is that the source of higher real wages must be found in production and not in a redistribution of the product of industry.

Those who had hoped to augment the laborer's real wages by making short shrift of the whole matter and adding to the laborer's wages what the entrepreneur now receives as profits, will be dis-

appointed by this analysis of the situation. But the surest way of losing the gains which labor has made lies in this direction of revolutionary measures. Our people are not of that temper on the political side. On the industrial side they are pretty thoroughly convinced that such a radical dislocation of our industrial institutions would lead to a fall in output which would wipe out completely an amount of product greater than that which now goes as profits. On a price level twice as high as that of the pre-war period, our national income would be over seventy billions of dollars. A ten per cent. increase in the national income is equal to the entire corporate profits now remaining after federal taxes. A twenty per cent. increase would amount to twice those profits. Certainly every consideration of commonsense and of practical economy dictates that it is better through increased production to increase real wages by twice the present volume of profits than to indulge in an experiment which would merely extinguish those profits through a decrease in production, and would probably lead to social and political ruin.

That a twenty per cent. increase in productive output is possible was demonstrated during the war. That the co-operation of labor is necessary to any such program is obvious. But the possi-

bility of that co-operation was also demonstrated. Given an aim that appealed to the imagination, that made labor an integral part of the body politic, it demonstrated its willingness to co-operate. But there had to be a worth-while end, and there had to be recognition of labor as a factor equal to the other partners in the industrial life of the nation.

One thing the laboring class has gained during the war. The continued demand for goods and the cessation of immigration has enabled the laborer to attain to a position of power such as he never enjoyed before. This is still meager enough when compared with the degree of individual liberty and independence which the professional and employing classes consider necessary to maintain their self-respect, but it is far larger than it ever was before, and in the interests of democracy this power should be conserved for the laboring classes. Despite the fact that money profits are not as large in terms of purchasing power as they were before the war, the business men of the country are on the defensive in the matter of profits and profiteering. It should be possible, therefore, to keep this group content with its present volume of profit. Any increase that can be effected in the national income through additional output will

then be available for raising real wages. Our problem is how so to co-ordinate and if necessary remodel our industrial institutions and arrangements that production can be brought to the full without endangering the complete employment of labor and without subjecting the business man to the enormous risk of financial extinction to which he has been exposed under the industrial régime of the past.

Nor will this general attitude approve itself to those who feel that this growth of wages and taxes will impoverish the nation's supply of capital in the future. The man who still thinks in terms of the middle-class economics which developed in the nineteenth century will deplore this limitation of upper-class incomes. To him initiative and saving are the very being and end of industrial life, while this proposal raises again the spectre of inadequate capital. Any diversion of income from the saving classes to the laboring classes is to be regarded with suspicion.

There was no doubt virtue in the concern of the last century over an adequate supply of capital. It was a period of rapid development in industrial technique coupled with a vast expansion of western civilization into the undeveloped resources of the earth. A fertile continent was peopled, and

equipped with transportation facilities, with housing accommodations, and with machinery. But the time has come when we must squarely raise the question whether it is any longer necessary to order our industrial institutions so largely with a view to capital accumulation. The volume of savings has increased greatly as a result of the industrial revolution which we have experienced since the late eighties. Today billions of these savings are absorbed, not in new plant and machinery for productive purposes, but in durable consumption goods. New automobiles, new houses, and new furniture absorbed not less than three billion dollars in 1919. It becomes then a question whether we shall extend and increase the supply of durable consumption goods for the middle and upper classes or whether we shall improve the dwelling and the furniture of the laboring man. Upon the whole his instincts in the direction of saving are quite as well developed as are those of the rich, but he has less with which to save. It is easy to save one's windfalls; it is difficult to accumulate capital when every bit of that accumulation means the foregoing of the things which give one's family respectability in the eyes of the community. This is the first consideration, then. Since so much of our savings are devoted to consump-

tion goods rather than production goods, the question is merely which class shall enjoy them.

But new capital is necessary to take advantage of the improvements in the arts and new inventions. They must be embodied in tangible, physical equipment. True. But even with the smaller profits of 1919 our corporate savings alone amounted to almost three billion dollars.

Further, in arriving at these profits the corporations first deducted the amount retained out of revenues to cover depreciation and depletion. Our capital equipment has grown so rapidly during the last thirty years that this sum alone amounted in 1917 to $1.7 billion. The entire amount charged for depreciation is available for the installation of plant and equipment of the most approved type. Depreciation charges, while they are an operating expense, differ from other expenses in one important respect. They represent no current disbursements for labor and material which are currently consumed. They are therefore available for new plant and equipment, either by way of replacement or for plant extension. If a power plant is abandoned because of obsolescence it is not replaced by one of the old type but by a new one which represents the very latest developments in the art. The capital, measured in money

terms, remains the same, but the physical plant which embodies it has taken on a new and more efficient form. Considered from this point of view the depreciation allowance represents savings and is available in its entirety for the utilization of technical developments. Corporate surplus and depreciation reserve combined amounted to four and one-half billion dollars in 1919. In 1913 they amounted to more than two and a half billions. There is no danger, then, that the more important new technical developments will not be utilized through lack of capital.

The habit of saving through life insurance and other institutions will easily add another billion dollars. The agricultural classes have won an advantageous position, all their protestations to the contrary notwithstanding. In the past their needs have constituted an important demand for capital; in the future they will supply their own needs in this direction and will furnish funds for industrial development besides. The laboring classes will probably absorb their own savings in such things as construction and equipment of better housing facilities.

It seems doubtful whether it is any longer necessary to defend for the mere sake of capital accumulation a distribution of wealth which is a con-

tinual source of social irritation. Even if profits do not grow at all for the next decade America's durable wealth will increase faster than that of England, France, Italy, and Germany combined.

The greatest obstacle to flood-tide production in this country is the conviction firmly rooted in the minds of both laborer and employer that America will not consume all that she can produce. Not that they state their opinions in this blunt manner; they would certainly deny the assertion when it is put in this crass form. But it is, nevertheless, implicit in their attitude and in their utterances. The laborer believes that there is only a certain volume of work to be done, and that if one laborer increases his efficiency and performs a larger share of the available work, there will be a smaller amount left for others. Consequently, labor is not as efficient as it might be or as it was during the war. The entrepreneur believes that it is impossible to find markets in this country for all the product which American industry could bring forth. Sifted to the bottom, the attitude of both groups involves the same fallacy. The laborer is making work by shirking; the business man is timid in going forward with production, and is looking abroad for markets rather than at home. After the signing of the armistice the suggestion

that our great industrial problem was to keep production at the war-time level was met repeatedly by business men with the brusque query, "But where will we find the market for them? The government will be out of the market, and who will buy the goods?" The waste of war seemed to them necessary if the product was to be consumed. So long have we been accustomed to producing at something far less than our full capacity that both employer and employe think it an inevitable part of our situation. In fact this malingering of industry has come to be looked upon as a virtue, and the man who suggests that it ought to be eliminated is considered little short of a suspicious radical, a perverter of the God-ordained order of things. If it is a question of 100 per cent. employment at 70 per cent. efficiency or of 70 per cent. employment at 100 per cent. efficiency, the laborer will quite certainly choose the former. No one who has his interest at heart could advise him to do otherwise, if these are the only alternatives. With 30 per cent. of unemployment he would surely lose a considerable measure of his power and would probably find his money wages reduced through the competition of the unemployed.

If the full promise of real wages is to be at-

tained, this factor of retardation which inheres in our industry in times of peace must be eliminated. The war cast it out for the space of three years. If we can discover the secret of war's effect upon industry we may indulge the hope of institutionalizing it and adding permanently to our annual national output.

The usual view of the matter is that business lags in normal times because of a failure in demand; that during the war there was an extraordinary demand, at first from the European governments and then from our own in addition. It was this additional demand that induced entrepreneurs to produce to full capacity. Now that the war demand has ceased it seems to most people obvious that production cannot go on at its former pace unless we can capture the foreign market. The Chairman of the National Foreign Trade Council sums up the attitude of the American business man to the effect that "either we shall find markets abroad for the surplus of our industrial productivity, or we shall cease to produce it, which is unthinkable. That way lies stagnation, unemployment, and business reverses." No wonder the laborer inquires why he should work more efficiently.

The fundamental fallacy lurking in this analysis

is a failure to realize that production creates demand. It is an old maxim of political economy that wants are insatiable. This is still true, even in a country where the average of productive output is as high as in our own. Not more than 20 per cent. of the families of the United States have incomes of $3,000 or more. With such a situation there is still an immense amount of unsatisfied demand which depends for its appearance in the actual market upon nothing more than opportunity and capacity to work and produce. To say that production lags because demand is not forthcoming starts with the assumption that production has already lagged and so has reduced demand. The secret of the thing must be sought elsewhere.

A more fundamental explanation is that low profits, or even ordinary profits, are not sufficient to tempt business men to high productive activity. Modern business is carried on for profit. When large profits are in prospect, therefore, production goes on at a feverish rate. It is doubtful whether this explanation of the matter is quite adequate. Most business men are perfectly willing to produce for low profits, especially when no opportunity presents itself to make high ones. The fundamental reason why production is retarded when only low profits are in sight is that a situa-

tion which yields small profits is one in which the prices of products and those of cost goods are close together. The risk that a fall in the former or a rise in the latter shall completely absorb the margin of profit is increased as these two sets of prices approach each other and is lessened as the margin between them widens. If the prices of the labor and material come to exceed the price of the product, the entrepreneur faces loss and ruin. During the last three years prices for products have risen at an enormous rate, and while it was certain that the prices of cost goods would rise also, the margin between the two was so great as to minimize the entrepreneur's risk. In this situation he was willing to produce to the full capacity of his plant.

The factor that prevents a full realization of our productive capacities is this risk of loss. If it could be minimized or eliminated the nation could have a high level of productive output even with moderate profits. It is pertinent, therefore, to inquire into the possibility of decreasing industrial risk through formal organization. Thus far the most successful institution which has been developed for the elimination of individual risk is the institution of insurance. In essence this is a pooling of the particular risk involved. Houses

burn; the building of houses would, in the absence of insurance, be a venture fraught with risk, and the supply of houses would therefore be restricted and of poorer quality. But by pooling the risk through fire insurance, one can be relieved for a small payment of the risk of loss by fire. One can then proceed to make his plans for building as though no risk of such loss existed. Cannot a similar principle be applied to the risk of industrial loss? If it were possible to guarantee every entrepreneur at least his operating expenses, including depreciation, the risk of loss could be minimized. This would unquestionably stimulate production.

Such a guaranty could be made only by the government, for it alone can exercise the taxing power necessary to take from the more fortunate industries those fortuitous profits which are the obverse of the losses incident to the modern industrial process. It would not do away with the right of private property or with individual initiative, nor would it in any wise lessen the incentive to prudence and efficiency. Neither would it induce anyone to put his capital into an unwise venture. There would still be the same incentive to exercise care in the direction of production, and to attain proficiency in its prosecution, for with-

out these no adequate rate of profit could be realized.

This would not be socialism, because the entire industrial equipment of the country would still remain private property, and the profits of industry would belong to the owner. They would, of course, be subject to taxation, and the tax system would have to be adjusted in such manner as to take from certain highly profitable enterprises the amount needed to cover the insured losses arising from the risks of modern business. Production would continue to be directed by individuals who would decide what should be produced and who would choose the methods of production. The right of private property in the means of production would probably have imposed upon it a new function. If the government assumed part of the risk of industrial loss it would no longer allow an owner to keep plants standing idle when such idleness caused unemployment. Any scheme of this sort would involve an examination and approval of the costs of labor and material before insuring them, otherwise the process might easily be open to fraud. But after our experiences during the war this task certainly is not an impossible one.

There is of course no absolute certainty that

this plan of insurance against industrial risk would work satisfactorily. It may be that upon closer examination of the details involved in its administration it will prove to be impracticable and unworkable. But if it were successful its possibilities are so epoch-making that it deserves thorough and unprejudiced consideration.

No amount of talk about returning to the pre-war situation can or should satisfy us. We have discovered our industrial power during the war, and on the basis of that discovery we should reconstruct and reorganize our industrial life. If it means the scrapping of some institutions, by all means let them be scrapped. Our old price level has already gone into the discard. We have erected a new banking system with new policies. What we need is to overhaul our industrial institutions in the same rational manner in which the managers of plants will abandon millions of dollars' worth of machinery which is as good as it ever was, and substitute for it new plant which is more efficient and economical. There is nothing in the productivity of the pre-war system as compared with that of war-time production which needs compel us to treat it as sacred.

One thing wartime experience showed clearly. American labor will respond to the appeal of

idealism. We were making the world safe for democracy. That meant fighting militarism, an institution which we abhorred. We could not entertain for a moment the possibility of allowing it to triumph. Out of the unity of mind and purpose which was born from this national end, ethical in import, flowed an unprecedented stream of production. If some end as important and compelling can be set up now, it seems reasonable to expect that our industrial attainments of the last five years can be duplicated. Perhaps our greatest obstacle is the profound distrust of democracy which exists among those who are in a position of influence and power in American industry. Thus far we have tried democracy only tentatively, with a rope tied to its hind leg, as it were. If we could fully and honestly believe that a high standard of living for all is better than ostentation for some, and that decent living for the masses is a more important economic end than capital accumulation, we might convince the laborer that exertion to the point of maximum efficiency is really worth while.

We have learned that it is possible to produce enough so that every class may have a decent standard of living. With this result realized, poverty will be abolished. This attainment is one of which nations have dreamed for centuries. No

nation has been within striking distance of its realization before. If any national leader or any group can be found with the imagination and the courage to appeal to America on the basis of this motive, and with an adequate program, we shall see the most promising and worth-while political and industrial experiment which we have tried in our national career.

INDEX

INDEX

Adams, Henry C., 180
Akron, Ohio, wages in the rubber industry, 104
Aristotle, on interest, 69
Banks, tables showing:
earnings of *1,616* commercial, 44
earnings of national, 19
earnings of New York City national, 44
per cent. earnings to capital and surplus, national, by geographical divisions, 42
ratio of earnings to capital and surplus, New York City and the interior, 230
loans for New York City and the interior, *1905-1907*, 231
Bell Telephone Company, increase of investment, 77

Cannan, Edwin, 1, 182
Capital increase as shown by investments, 85
Capital wealth of the United States, 81
Cassel, Gustav, 99
Census of Manufactures, United States:
Increase in plant capacity, 76, 77
Employes, number of, 119, 120
Wages, 102, 122
Census of Shipbuilding, U. S., comparative wages *1916* and *1914*, 126
Comptroller of the Currency, U. S., 19, 27, 33, 75, 228
"Corporate Earnings and Government Revenues," 35, 44, 63
Corporations, tables showing:
capital stock and invested capital of *4,508*, 65
net income of all corporations before and after taxes, 15, 296
net income of all corporations by classes, 52
net income and excess profits taxes of all corporations pre-war and *1916*, *1917*, 198
net income, dividends and surplus of all corporations, *1909-1919*, 64
net income of *10,020*, average for years *1911-1913*, 41
net income of *30,892*, by classes, 39
net income and excess profits taxes of *31,045*, 37
——— manufacturing, tables showing:
net income of *251* and *419*, from published reports, 17
net income of *259*, from published reports, 24
dividends and surplus of *251*, from published reports, 62
——— manufacturing and mining, table showing net income, 17
——— mercantile, table showing net income of *22*, from published reports, 20
——— public utility, table showing net income of *24*, from published reports, 169
——— railroad and public utility, table showing net income, total United States, 18

Cost of living, Bureau of Labor Statistics, 107; National Industrial Conference Board, 107
Detroit, Assessment of real estate, 79
Distribution of product, table showing, 117; in percentages, 124
Dividends, paid by all corporations, 64, 236; paid by *251* corporations, 62; per cent. of to individual net incomes, 55

Farm products, value of, *1911-1919*, 27
Federal Reserve Board, 224, 227, 231-3
Federal Trade Commission, 34

Hobson, C. K., English foreign investments, 142
Hobson, J, A., marginal producers, 201

Income tax returns, individual, 29
Internal Revenue Bureau, U. S., reports of, 15, 17, 20, 84

Journal of Commerce, 84, 86

Keynes, John Maynard, 66

London Economist Index Number of Wholesale Prices, 145

Michigan, Special Tax Commission, 53
Muller, Jean Paul, 34

New York, Special Legislative Committee on Taxation, 54
New York State Industrial Commission, wages and employes, 103

Owen, Senator Robert, 43

Paish, Sir George, estimate of national wealth, 83
Pere Marquette Railroad, wages, 101
Petty, Sir William, "Political Arithmetic," 193
Prices, wholesale, index number of, 137

Railroads, employes, 120; profits, 60; wages, 101
Roberts, George E., estimate of national wealth, 83

Stamp, J. C., effect of excess profits tax on investment, 206
"Statistics of Income," 17, 115, 117
Sterrett, J. E., 34
Stewart, Walter W., 232
Surplus, of all corporations, 4; of *251* corporations, 62

Taxes, federal on corporations, 15; excess profits by industries, 198; state and local, 52, 123

United States Bureau of Labor Statistics, employes and wages, 105; living costs, 107; weekly wages, 103; wholesale price index, 137, 138, 158, 222
United States Steel Corporation, 34, 104

Wages, Massachusetts Census of Manufactures, 102; New York State Industrial Commission, 103; Pennsylvania industrial establishments, 102; United States Bureau of Labor Statistics, 103, 105
——— tables showing:
average weekly in New York State Factories, 103
employes and payrolls of Akron rubber companies, 105
War Industries Board, wholesale price index, 150